NIMAST
Connecting Professionals in Stroke

UK STROKE FORUM

Hosted by Stroke association

6th Northern Ireland Stroke Conference

Tuesday 13 June 2017
Crowne Plaza, Shaws Bridge, Belfast

Delegate Programme &
Exhibition Guide
#NISC17

Kindly supported by:

BAYER

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InTouch Health

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Welcome to the 6th Northern Ireland Stroke Conference organised in partnership between the Northern Ireland Multidisciplinary Association for Stroke Teams (NIMAST) and the UK Stroke Forum (UKSF).

We hope you enjoy the day and the variety of sessions planned for our multidisciplinary audience by the Conference Planning Committee.

Thanks to our sponsors:

Gold: Bayer, evolve innovation by kainos, InTouch Health

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Bronze: NestléHealthScience, NOVACOR UK Ltd., IQoro® Breathe. Eat. Smile. Talk., Saebo

Lanyards sponsored by: NOVACOR UK Ltd.

Contents

Acknowledgements

Northern Ireland Conference Planning Committee 2016/17

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Nicola Moran, Belfast Trust, NIMAST Chair
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Tracy Johnson, UK Stroke Forum Conference Manager
Carly Norton, Sponsorship & Exhibition Manager
Jenna Bennett, UK Stroke Forum Event Administrator
Olivia Flaherty, UK Stroke Forum Event Administrator

Useful Information

Venue

- Conference sessions will take place on the first floor in the Grand Ballroom
- Exhibition and charity stands are located in the Grand Ballroom Pre-function Lounge and Poster Room
- Research posters, including ongoing trials, are in the Grand Ballroom sub-section 2

WIFI

Internet access is available free of charge throughout the venue.

Enquiries

The Enquiries Desk is located outside the Grand Ballroom on the first floor.

First Aid

Delegates requiring first aid are asked to report to venue or conference staff for assistance.

Refreshments

Tea, coffee and lunch are included for all delegates and will be served in the Exhibition areas and Poster Room. Delegates are welcome to use seating in session rooms during refreshment breaks (rooms will be cleared 30 minutes before the next session starts).

Speaker Presentation slides

Presentation slides, where permitted, will be available on www.ukstrokeforum.org after the event.

CPD and Evaluation

Accreditation has been awarded from the Federation of the Royal Colleges of Physicians of the United Kingdom for 6 category 1 (external) CPD credits.

CPD certificates will be issued upon completion of the on-line conference evaluation form.

Your feedback is extremely valuable to ensure the event continues to improve and meet your needs each year and we welcome any feedback you have.

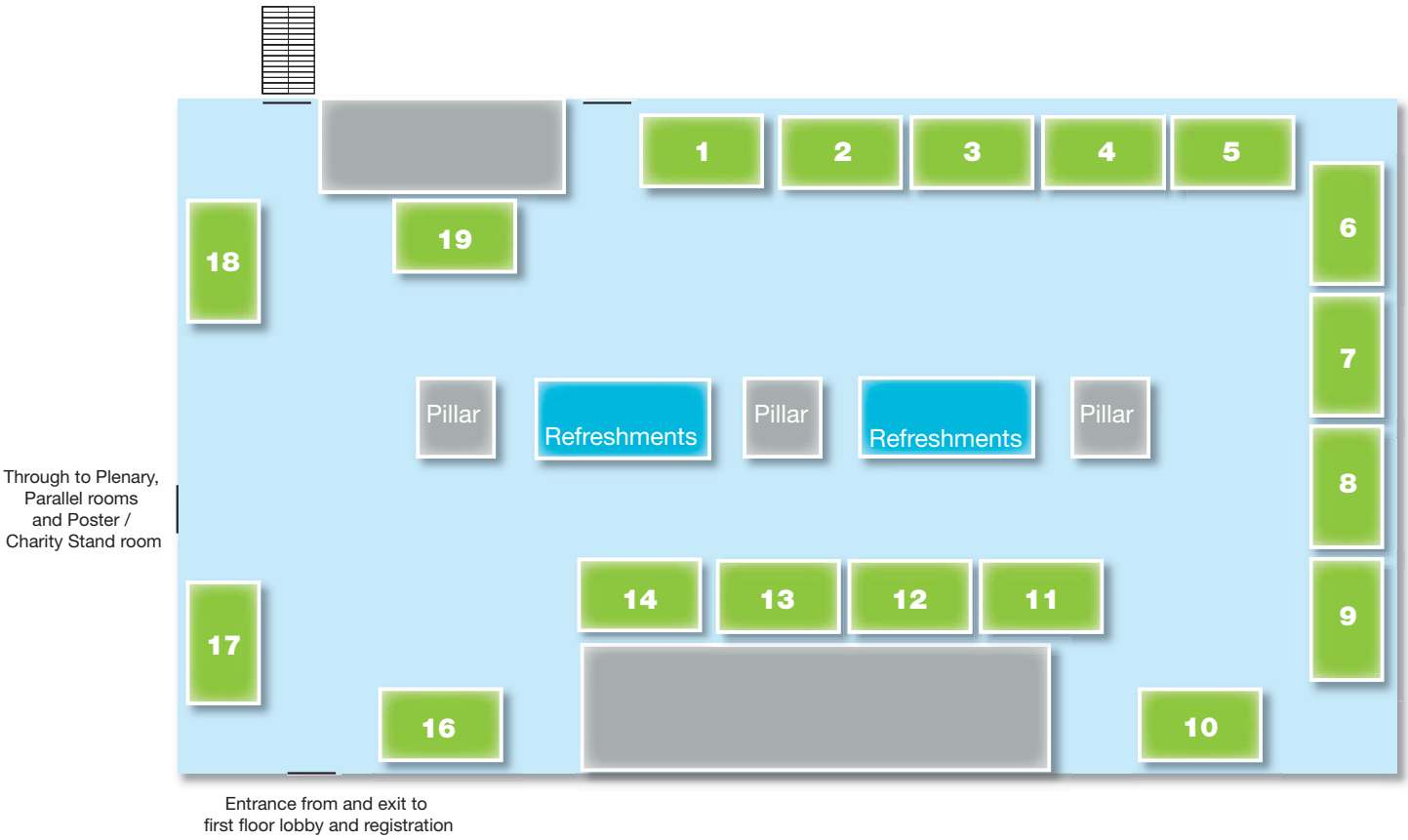
The online evaluation form will be sent to you by email after the event.

This service is kindly provided by DCC

Photography

Our team will be taking photographs throughout the conference and we may use some of the images taken for promotional purposes (including our website and social media). Please let us know if you have any concerns about this.

Floorplan



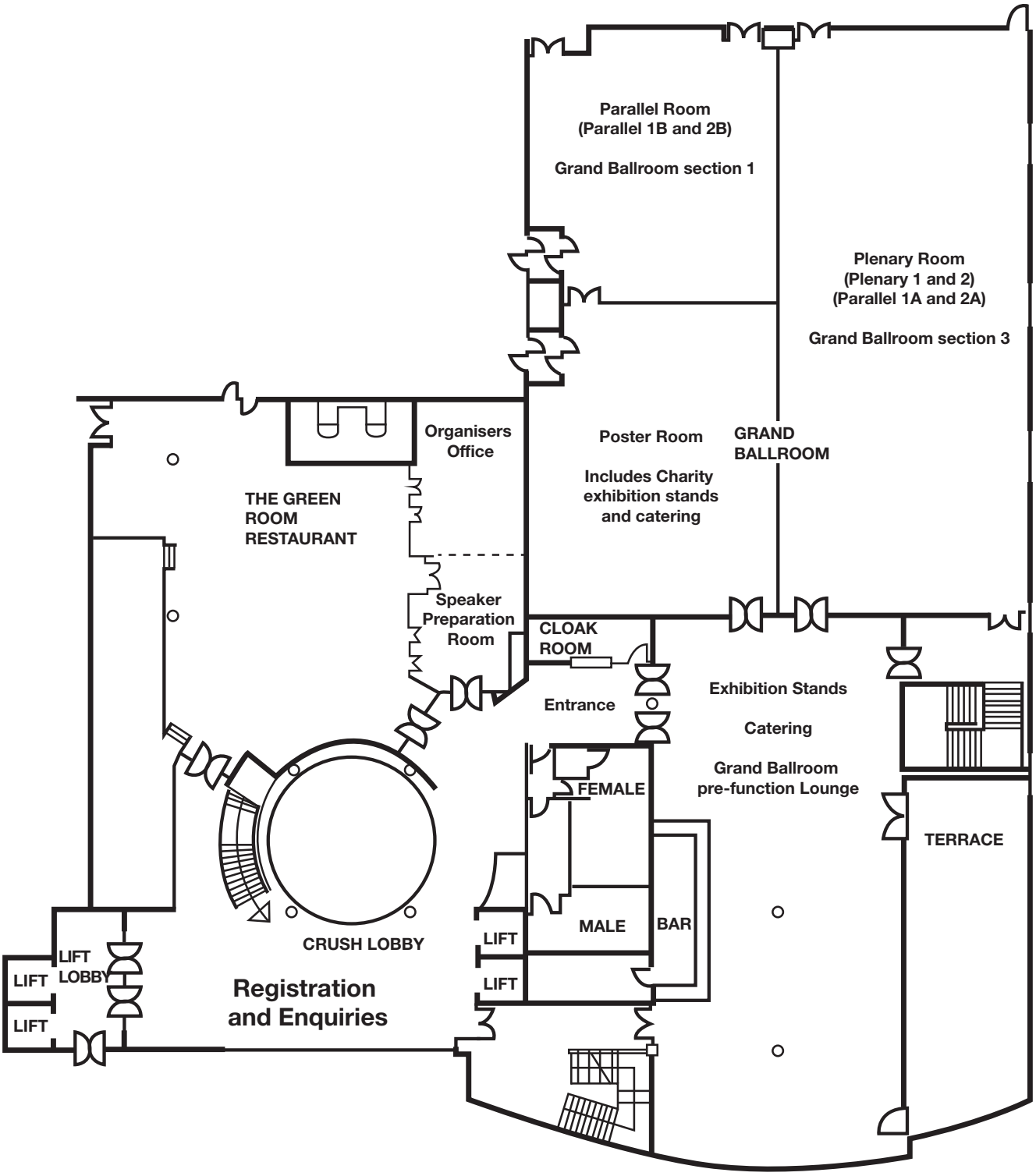
Exhibition stands

Stand 1 – BMS/Pfizer Alliance
Stand 2 – MYoroface
Stand 3 – Kainos Evolve / InTouch Health
Stand 4 – Bayer
Stand 5 – Medtronic
Stand 6 – Nestlé
Stand 7 – NI Clinical Research Network
Stand 8 – Daiichi Sankyo
Stand 9 – Connected Care Solutions
Stand 10 – Kora Healthcare
Stand 11 – Silverlink
Stand 12 – SSNAP/Royal College of Physicians
Stand 13 – Saebo
Stand 14 – Allergan
Stand 16 – Stryker
Stand 17 – Capita
Stand 18 – Nihon Kohden UK Ltd
Stand 19 – Novacor

Charity Table Top Stands

Stand A – Stroke Association
Stand B – The Magic Project
Stand C – Northern Ireland Chest Heart & Stroke
Stand D – NIMAST
Stand E – Royal College of Speech and Language Therapists

Conference Floorplan



Help protect your patients with non-valvular atrial fibrillation (NVAF) against stroke / systemic embolism

ONLY ELIQUIS® CONNECTS BOTH IN PATIENTS WITH NVAF

ELIQUIS is the **only** factor Xa inhibitor that has demonstrated superior risk reduction in stroke / systemic embolism **with** significantly less major bleeding vs. warfarin[1]

Reference: 1. Granger CB *et al*. N Engl J Med 2011; 365: 981–992.

Date of preparation: May 2017 **Job code:** 432UK1700548-01

Bristol-Myers Squibb Pfizer

ELIQUIS® (apixaban) 2.5 mg & 5 mg Film-coated Tablets Prescribing Information

Consult summary of product characteristics (SmPC) prior to prescribing and for full list of adverse events. **PRESENTATION:** Film-coated tablets; 2.5mg and 5mg apixaban. **INDICATION:** Prevention of stroke and systemic embolism in adult patients with non-valvular atrial fibrillation (NVAF) with one or more risk factors, such as prior stroke or transient ischaemic attack (TIA), age ≥75 years, hypertension, diabetes mellitus or symptomatic heart failure (NYHA Class ≥II). Treatment of deep vein thrombosis (DVT) and pulmonary embolism (PE), and prevention of recurrent DVT and PE in adults (see Special warnings and precautions for information on haemodynamically unstable PE patients). Prevention of venous thromboembolic events (VTE) in adult patients who have undergone elective hip or knee replacement surgery (2.5 mg only). **DOSAGE AND ADMINISTRATION:** Oral. Taken with water, with or without food. *Prevention of stroke and systemic embolism in patients with NVAF:* The recommended dose is 5 mg taken twice a day. Patients who meet at least two of the following criteria: serum creatinine ≥1.5 mg/dL (133 micromole/l), age ≥80 years, or body weight ≤60 kg should receive the lower dose of Eliquis, 2.5 mg twice daily. All patients with severe renal impairment (creatinine clearance 15-29 ml/min) should receive the lower dose of Eliquis 2.5 mg twice daily. Therapy should be continued long term. *Treatment of DVT, treatment of PE and prevention of recurrent DVT and PE (VTEt):* The recommended dose for the treatment of acute DVT and treatment of PE is 10 mg taken twice daily for the first 7 days followed by 5 mg taken twice daily. As per available medical guidelines, short duration of treatment (at least 3 months) should be based on transient risk factors (e.g. recent surgery, trauma, immobilisation). The recommended dose for the prevention of recurrent DVT and PE is 2.5 mg taken twice daily. When prevention of recurrent DVT and PE is indicated, the 2.5 mg twice daily dose should be initiated following completion of 6 months of treatment with Eliquis 5 mg twice daily or with another anticoagulant. The duration of overall therapy should be individualised after careful assessment of the treatment benefit against the risk for bleeding. *Prevention of VTE (VTEp): elective hip or knee replacement surgery:* The recommended dose is 2.5 mg taken twice a day. The initial dose should be taken 12 to 24 hours after surgery. In patients undergoing hip replacement surgery, the recommended duration of treatment is 32 to 38 days. In patients undergoing knee replacement surgery, the recommended duration of treatment is 10 to 14 days. *Missed Dose for All Indications:* If a dose is missed, Eliquis should be taken immediately and then continue with twice daily dose as before. *Switching:* switching treatment from parenteral anticoagulants to Eliquis (and vice versa) can be done at the next scheduled dose. These medicinal products should not be administered simultaneously. *Switching treatment from VKA therapy to Eliquis:* warfarin or other VKA therapy should be discontinued and Eliquis started when the international normalized ratio (INR) is <2. *Switching treatment from Eliquis to VKA therapy:* administration of Eliquis should be continued for at least 2 days after beginning VKA therapy. After 2 days of co-administration of Eliquis with VKA therapy, an INR should be obtained prior to next scheduled dose of Eliquis. Co-administration of Eliquis and VKA therapy should be continued until the INR is ≥2. *Renal impairment:* No dose adjustment in mild or moderate renal impairment. Eliquis is to be used with caution in severe renal impairment (creatinine clearance 15-29 mL/min) as there *may be an increased risk* of bleeding. For the prevention of stroke and systemic embolism in patients with NVAF and severe renal impairment, patients should receive the lower dose of Eliquis 2.5 mg twice daily. Patients with NVAF and serum creatinine ≥1.5 mg/dL (133 micromole/l) associated with age ≥80 years or body weight ≤60 kg should also receive the lower dose of Eliquis 2.5 mg twice daily for stroke/systemic embolism prevention. In patients with creatinine clearance <15 mL/min, or in patients undergoing dialysis, there is no clinical experience therefore Eliquis is not recommended. *Hepatic impairment:* Contraindicated in patients with hepatic disease associated with coagulopathy and clinically relevant bleeding risk. Not recommended in patients with severe hepatic impairment. Use with caution in patients with mild or moderate hepatic impairment (Child Pugh A or B). No dose adjustment is required in patients with mild or moderate hepatic impairment. Use with caution in patients with elevated liver enzymes (ALT/AST >2 x ULN) or total bilirubin ≥1.5 x ULN. Prior to initiating Eliquis, liver function testing should be performed. *Cardioversion* (NVAF): Patients can stay on Eliquis while being cardioverted. *Paediatric population:* Eliquis is not recommended in children and adolescents below the age of 18. **CONTRAINDICATIONS:** Hypersensitivity to the active substance or to any of the excipients listed in SmPC, active clinically significant bleeding, hepatic disease associated with coagulopathy and clinically relevant bleeding risk, lesion or condition if considered a significant risk factor for major bleeding (refer to SmPC). Concomitant treatment with any other anticoagulant agent except under specific circumstances of switching anticoagulant therapy or when unfractionated heparin is given at doses necessary to maintain an open central venous or arterial catheter (refer to SmPC). **SPECIAL WARNINGS AND PRECAUTIONS:** *Haemorrhage risk:* Carefully observe for signs of bleeding. Use with caution in conditions with increased risk of haemorrhage. Discontinue administration if severe haemorrhage occurs. *Interaction with other medicinal products affecting haemostasis:* Concomitant treatment with any other anticoagulant is contraindicated (see contraindications). The concomitant use of Eliquis with antiplatelet agents increases the risk of bleeding. Care is to be taken if patients are treated concomitantly with non-steroidal anti-inflammatory drugs (NSAIDs), including acetylsalicylic acid. Following surgery, other platelet aggregation inhibitors are not recommended concomitantly with Eliquis. In patients with atrial fibrillation and conditions that warrant mono or dual antiplatelet therapy, a careful assessment of the potential benefits against the potential risks should be made before combining this therapy with Eliquis. *Use of thrombolytic agents for the treatment of acute ischemic stroke:* there is very limited experience with the use of thrombolytic agents for the treatment of acute ischemic stroke in patients administered Eliquis. *Patients with prosthetic heart valves:* safety and efficacy of Eliquis have not been studied in patients with prosthetic heart valves, with or without atrial fibrillation. Therefore, the use of Eliquis is not recommended in this setting. *Surgery and invasive procedures:* Eliquis should be discontinued at least 48 hours prior to elective surgery or invasive procedures with a moderate or high risk of bleeding. This includes interventions for which the probability of clinically significant bleeding cannot be excluded or for which the risk of bleeding would be unacceptable. Eliquis should be discontinued at least 24 hours prior to elective surgery or invasive procedures with a low risk of bleeding. This includes interventions for which any bleeding that occurs is expected to be minimal, non-critical in its location or easily controlled. If surgery or invasive procedures cannot be delayed, appropriate caution should be exercised, taking into consideration an increased risk of bleeding. This risk of bleeding should be weighed against the urgency of intervention. Eliquis should be restarted after the invasive procedure or surgical intervention as soon as possible provided the clinical situation allows and adequate haemostasis has been established (see SmPC). *Temporary discontinuation:* Discontinuing anticoagulants, including Eliquis, for active bleeding, elective surgery, or invasive procedures places patients at an increased risk of thrombosis. Lapses in therapy should be avoided and if anticoagulation with Eliquis must be temporarily discontinued for any reason, therapy should be restarted as soon as possible. *Spinal/epidural anaesthesia or puncture:* When neuraxial anaesthesia (spinal/epidural anaesthesia) or spinal/epidural puncture is employed, patients treated with antithrombotic agents for prevention of thromboembolic complications are at risk of developing an epidural or spinal haematoma which can result in long-term or permanent paralysis. The risk of these events may be increased by the post-operative use of indwelling epidural catheters or the concomitant use of medicinal products affecting haemostasis. Indwelling epidural or intrathecal catheters must be removed at least 5 hours prior to the first dose of Eliquis. The risk may also be increased by traumatic or repeated epidural or spinal puncture. Patients are to be frequently monitored for signs and symptoms of neurological impairment (e.g., numbness or weakness of the legs, bowel or bladder dysfunction). If neurological compromise is noted, urgent diagnosis and treatment is necessary. Prior to neuraxial intervention the physician should consider the potential benefit versus the risk in anticoagulated patients or in patients to be anticoagulated for thromboprophylaxis. There is no clinical experience with the use of Eliquis with indwelling intrathecal or epidural catheters. In case there is such need and based on the general PK characteristics of Eliquis, a time interval of 20-30 hours (i.e. 2 x half-life) between the last dose of Eliquis and catheter withdrawal should elapse, and at least one dose should be omitted before catheter withdrawal. The next dose of Eliquis may be given at least 5 hours after catheter removal. As with all newer anticoagulant medicinal products, experience with neuraxial blockade is limited and extreme caution is therefore recommended when using Eliquis in the presence of neuraxial blockade. *Haemodynamically unstable PE patients or patients who require thrombolysis or pulmonary embolectomy:* Eliquis is not recommended as an alternative to unfractionated heparin in patients with pulmonary embolism who are haemodynamically unstable or may receive thrombolysis or pulmonary embolectomy since the safety and efficacy of Eliquis have not been established. *Patients with active cancer:* efficacy and safety of Eliquis in the treatment of DVT, treatment of PE and prevention of recurrent DVT and PE (VTEt) in patients with active cancer have not been established. *Renal impairment:* see dosage and administration section. *Elderly patients:* increasing age may increase haemorrhagic risk. Also, the co-administration of Eliquis with ASA in elderly patients should be used cautiously because of a potentially higher bleeding risk. *Body weight:* low body weight (< 60 kg) may increase haemorrhagic risk. *Hepatic impairment:* see dosage and administration section. *Interaction with Inhibitors of CYP3A4 and P-gp:* The use of Eliquis is not recommended in patients receiving concomitant systemic treatment with strong inhibitors of both CYP3A4 and P-gp, such as azole-antimycotics (e.g., ketoconazole, itraconazole, voriconazole and posaconazole) and HIV protease inhibitors (e.g., ritonavir). These medicinal products may increase Eliquis exposure by 2-fold or greater in the presence of additional factors that increase Eliquis exposure (e.g. severe renal impairment). *Interaction with Inducers of CYP3A4 and P-gp:* Eliquis should not be used for the treatment of DVT and PE in patients receiving concomitant systemic treatment with strong inducers of both CYP3A4 and P-gp since efficacy may be compromised. In patients receiving concomitant systemic treatment with strong inducers of both CYP3A4 and P-gp, Eliquis should be used with caution for the prevention of VTE in elective hip or knee replacement surgery, for the prevention of stroke and systemic embolism in patients with NVAF and for the prevention of recurrent DVT and PE, though no dose adjustment for Eliquis is required during concomitant therapy with such medicinal products. *Hip fracture surgery:* Eliquis has not been studied in clinical trials in patients undergoing hip fracture surgery to evaluate efficacy and safety in these patients. Therefore, it is not recommended in these patients. *Laboratory parameters:* Clotting tests (PT, INR, and aPTT) are affected as expected by the mechanism of action of apixaban. Changes observed in these clotting tests at the expected therapeutic dose are small and subject to a high degree of variability (see SmPC). *Information about excipients:* Eliquis contains lactose. Patients with galactose intolerance, the Lapp lactase deficiency or glucose-galactose malabsorption should not take Eliquis. **DRUG INTERACTIONS:** Medicinal products associated with serious bleeding are not recommended concomitantly with Eliquis, such as: thrombolytic agents, GPIIb/IIIa receptor antagonists, thienopyridines (e.g. clopidogrel), dipyridamole, dextran and sulfinpyrazone. Due to an increased bleeding risk, concomitant treatment with any other anticoagulants is contraindicated. Administration of activated charcoal reduces Eliquis exposure. Also see contraindications and special warnings and precautions section; Consult SmPC (contraindications, special warnings and precautions and drug interactions) for full details on interactions. **PREGNANCY AND LACTATION:** *Pregnancy:* Not recommended during pregnancy. *Breastfeeding:* Discontinue breastfeeding or discontinue Eliquis therapy. **UNDESIRABLE EFFECTS:** Increased risk of occult or overt bleeding from any tissue or organ, which may result in post haemorrhagic anaemia. The signs, symptoms, and severity will vary according to the location and degree or extent of the bleeding. *Prevention of VTE in adult patients who have undergone elective hip or knee replacement surgery (VTEp):* Common (≥1/100 to <1/10): anaemia, haemorrhage, haematoma, nausea, contusion. Uncommon (≥1/1,000 to <1/100): thrombocytopenia; specific haemorrhage such as gastrointestinal, post procedural, incision site, operative; haematochezia. Rare (≥1/10,000 to <1/1,000): hypersensitivity, allergic oedema and anaphylaxis; specific haemorrhage such as eye (including conjunctival), rectal, muscle; haemoptysis. *Prevention of stroke and systemic embolism in adult patients with NVAF, with one or more risk factors (NVAF):* Common (≥1/100 to <1/10): specific haemorrhage such as eye (including conjunctival), gastrointestinal, rectal; haemorrhage, haematoma, epistaxis, gingival bleeding, haematuria, contusion. Uncommon (≥1/1,000 to <1/100): hypersensitivity, allergic oedema and anaphylaxis; specific haemorrhage such as brain, intra-abdominal, abnormal vaginal, urogenital, traumatic, post procedural, incision site; haemoptysis, haematochezia. Rare (≥1/10,000 to <1/1,000): specific haemorrhage such as respiratory tract, retroperitoneal. *Treatment of DVT and PE, and prevention of recurrent DVT and PE (VTEt):* Common (≥1/100 to <1/10): haemorrhage, haematoma, epistaxis; specific haemorrhage such as gastrointestinal, rectal; gingival bleeding, haematuria, contusion. Uncommon (≥1/1,000 to <1/100): specific haemorrhage such as eye (including conjunctival), abnormal vaginal, urogenital, traumatic, post procedural, incision site; haemoptysis, haematochezia. Rare (≥1/10,000 to <1/1,000): specific haemorrhage such as brain, respiratory tract. Please refer to the SmPC for further details of adverse reactions including other types of haemorrhage. LEGAL CATEGORY: POM. PACKAGE **QUANTITIES AND BASIC NHS PRICE:** Carton of 10 film-coated tablets 2.5mg £9.50, 20 film-coated tablets 2.5mg £19.00, 60 film-coated tablets 2.5mg £57.00, 56 film-coated tablets 5mg £53.20, 28 film-coated tablets 5mg £26.60. **MARKETING AUTHORISATION NUMBERS:** EU/1/11/691/001-3, EU/1/11/691/008, EU/1/11/691/014 **MARKETING AUTHORISATION HOLDER:** Bristol-Myers Squibb/Pfizer EEIG, BMS House, Uxbridge Business Park, Sanderson Road, Uxbridge, Middlesex, UB8 1DH. Telephone: 0800-731-1736. **DATE OF PI PREPARATION:** March 2016 432UK1600117-01-01 ELQ1118should consider the potential benefit versus the risk in anticoagulated patients or in patients to be anticoagulated for thromboprophylaxis. There is no clinical experience with the use of Eliquis with indwelling intrathecal or epidural catheters. 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Adverse events should be reported. Reporting forms and information can be found at www.mhra.gov.uk/yellowcard. Adverse events should also be reported to Bristol-Myers Squibb Pharmaceuticals Ltd Medical Information on 0800 731 1736 or medical.information@bms.com

Preliminary Programme

08:00 – 09:00	**Grand Ballroom Lobby and Pre-Function Lounge**
	Registration, Exhibition and Refreshments
09:00 – 10:30 **Grand Ballroom** **Sub-Section 3**	**Plenary 1** **Advancing the Stroke Pathway in Northern Ireland**
	Chair: Nicola Moran *(Clinical Physiotherapy Specialist in Stroke, Belfast Health and Social Care Trust)*
09:00 – 09:05	**Welcome and Introductions**
09:05 – 09:25	**Future Proofing Stroke Services in Northern Ireland** Dr Brid Farrell *(Assistant Director, Service Development, Safety and Quality)*
09:25 – 09:45	**Centralising to a seven day acute stroke service in Greater Manchester – lessons learnt** Sarah Rickard *(Manager, Greater Manchester Stroke Operational Delivery Network)* and Dr Jane Molloy *(Consultant Neurologist, Greater Manchester Stroke ODN)*
09:45 – 10:20	**Stroke Survivors perspective** **Unmet needs of stroke survivors and their carers** Stroke survivors and carers will give their perspective, focusing on long term rehabilitation and care needs and the interventions required in both community and residential settings
10:20 – 10:30	**Questions and Answers**
10:30 – 11:15	**Exhibition, Posters and Refreshments**

11:15 – 12:30
Grand Ballroom
Sub-Section 3

Parallel 1A
Management of Cardioembolic Stroke

Chair: Dr Stephen Todd *(Consultant Geriatrician, Western Health and Social Care Trust and Honorary Lecturer, Queen's University Belfast)*

11:15 – 11:20 **Welcome and Introductions**

11:20 – 11:35 **When should AF be ablated?**
Dr Conor McCann *(Consultant Cardiologist / Electrophysiologist Belfast Trust)*

11:35 – 11:50 **PFO Closure and the role of left atrial appendage occlusion**
Dr Mark Spence *(Consultant Cardiologist, Royal Victoria Hospital, Belfast Trust and Honorary Senior Lecturer, Queen's University Belfast)*

11:50 – 12:05 **DOACs – the story so far!**
Dr Gary Benson *(Consultant Haematologist, Belfast City Hospital, Belfast Health and Social Care Trust)*

12:05 – 12:20 **DOACs: Getting it Right!**
Leona Rodgers and Dr Roisin Healy *(Pharmacist, Stroke Unit BHSCT)*

Kindly Sponsored by BAYER

12:20 – 12:30 **Questions and Answers**

11:15 – 12:30
Grand Ballroom
Sub-Section 1

Parallel 1B
Physical and Psychosexual Effects after Stroke

Chair: Dr Shelley McKeown *(Stroke Services, Western Health & Social Care Trust)*

11:15 – 11:20 **Welcome and Introductions**

11:20 – 11:35 **Enabling people after stroke to retain intimate relationships**
Dr Neal Cook *(Reader, School of Nursing, Ulster University)*

11:35 – 11:50 **The development of spasticity and contractures after stroke. Can we stop them and how might we do this?**
Cameron Lindsey *(Physiotherapist, South Eastern Trust, Keele University)*

11:50 – 12:05	**Let's talk about aphasia; current evidence and collaborative working** Professor Marian Brady *(Professor Stroke Care & Rehabilitation, NMAHP Research Unit)*
12:05 – 12:20	**Post-stroke upper limb rehabilitation – next steps** Dr Nick Ward *(Reader in Clinical Neurology & Honorary Consultant Neurologist, Sobell Department of Motor Neuroscience UCL Institute of Neurology and National Hospital for Neurology and Neurosurgery)*
12:20 – 12:30	**Questions and Answers**
12:30 – 13:30	**Lunch, Exhibition and Poster Viewing**

13:30 – 15:00 **Grand Ballroom** **Sub-Section 3**	**Parallel 2A** **Rehabilitation, enablement and enhancing quality of life of nursing home residents post stroke**
	Chair: Dr Liz Laird *(Lecturer of Nursing, Ulster University)*
13:30 – 13:35	**Welcome and Introductions**
13:35 – 14:00	**My Home Life: Challenges and Opportunities in Improving Quality of Stroke Care in Nursing and Residential Homes** Professor Assumpta Ryan *(Professor of Ageing and Health, Ulster University)*
14:00 – 14:25	**In-reach rehabilitation for person-centred care** Mandy Ellis *(Practice Development Nurse)*
14:25 – 14:50	**Exploring the value of 6 month reviews in care home settings to ask: are we meeting the needs of stroke survivors in care homes?** Dr Emma Patchick *(Research Associate for GM-CLAHRC Stroke Programme)*
14:50 – 15:00	**Questions and Answers**

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13:30 – 15:00 **Grand Ballroom** **Sub-Section 1**	**Parallel 2B** **High Scoring Abstracts**
	Chair: Dr Michael McCormick *(Consultant Stroke Physician, Craigavon Area Hospital, Southern Health and Social Care Trust)*
13:30 – 13:35	**Welcome and Introductions**
13:35 – 13:47	**Stroke Prevention Rehabilitation Intervention Trial of Exercise (SPRITE) - A Randomised Feasibility Study** Dr Neil Heron *(NIHR Clinical Fellow in GP and Sport and Exercise Medicine, Centre for Public Health, Queen's University Belfast)*
13:47 – 13:59	**Effect of IQoro® training on impaired postural control and oropharyngeal motor function in patients with dysphagia after stroke** Dr Mary Hägg *(Head of Department, Speech and Swallowing Centre, ENT Faculty, Hudiksvall Hospital, Sweden)*
13:59 – 14:18	**Post-Stroke Ankle-Foot Orthoses: Examining Referral Trends in the Scottish Multi-Disciplinary Team** Eileen Morrow *(Orthotist, Nuffield Orthopaedic Centre, Oxford)*
14:18 – 14:30	**Head Position in Stroke Trial (HeadPoST) results: implications for clinical practice** Dr Liz Lightbody *(Reader in Health Services Research, School of Nursing, University of Central Lancashire)*
14:30 – 14:42	**Outcomes after thrombectomy in Belfast: a comparison of drip and ship versus mothership paradigms** Dr Karen Adams *(Specialty Doctor, Stroke Unit, RVH)*
14:42 - 14:54	**Untreated visual deficits and length of stroke inpatient admissions: is there a link?** David Wright *(Specialist Orthoptist, Western Health & Social Care Trust)* Kindly Sponsored by evolve innovation by kainos InTouch Health
14:54 – 15:00	**Questions and Answers**
15:00 – 15:30	**Exhibition, Posters and Refreshments**

15:30 – 17:00 **Grand Ballroom** **Sub-Section 3**	**Plenary 2** **Reading between the guidelines**
	Chairs: Dr Patricia Gordon (*Consultant Physician, Belfast Health and Social Care Trust)* and Nicola Moran *(Clinical Physiotherapy Specialist in Stroke, Belfast Health and Social Care Trust)*
15:30 – 15:35	**Welcome, Introductions and Prize Giving**
15:35 – 15:50	**Reading between the guidelines – acute stroke and TIA** Professor Peter Langhorne *(Chair of UK Stroke Forum, Professor of Stroke Care, University of Glasgow)*
15:50 – 16:05	**What guidance from clinical guidelines on the provision of SLT for aphasia** Professor Marian Brady *(Professor Stroke Care & Rehabilitation, NMAHP Research Unit)*
16:05 – 16:20	**Psychological interventions after stroke** Dr Fiadhnait O'Keeffe PhD, DClinPsyc *(Senior Clinical Neuropsychologist National Rehabilitation Hospital, Dun Laoghaire, Co. Dublin)*
16:20 – 16:35	**Update on Thrombectomy and from Belfast Trust** Dr Ian Rennie *(Consultant Interventional Neuroradiologist, Belfast Health and Social Care Trust)*
16:35 – 16:50	**RCPCH Clinical Guideline, Stroke in Childhood An evidence-based guideline for diagnosis, management, and rehabilitation** Dr Neil Baldwin *(Consultant Stroke Physician, Royal Devon & Exeter Foundation Trust)*
16:50 – 17:00	**Questions and Answers** Close and Final Remarks
17:00	**Conference Ends**
17:00	**NIMAST AGM**

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Stroke association

Exhibitors

Stand 14 – Allergan

Email: ukcustomerservices@allergan.com **Website:** www.allergan.co.uk

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Stand 1 – BMS/Pfizer Alliance

Email: jacqueline.barbour@bms.com **Website:** www.eliquis.co.uk

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Stand 17 – Capita

Email: piprecruitment@capita.co.uk **Website:** www.capita.com

Capita PIP are currently recruiting for Nurses, Paramedics, Occupational Therapists & Physiotherapists to work as Disability Assessors. We currently have roles available in Wales, East Midlands, West Midlands & Northern Ireland. We are recruiting for full & part time permanent roles paying £34,000 to £38,000 per annum & contractor roles paying £95 per report. For more information please come & speak to some of our existing Disability Assessors on the stand or email piprecruitment@capita.co.uk

Stand 8 – Daiichi Sankyo

Email: Una.Lordan@daiichi-sankyo.co.uk **Website:** www.daiichi-sankyo.co.uk

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Stand 3 – Kainos Evolve / InTouch Health

Email: evolve@kainosevolve.com **Website:** www.kainosevolve.com

Kainos Evolve® is part of Kainos Group plc, which employs over 1000 staff and is headquartered in Belfast, with offices in UK, Ireland, USA and Poland. The Evolve Integrated Care Platform is enabling healthcare providers to bring their patient information together, across teams and organizations, enabling better-informed care, including access for the patient and their carers. The award-winning Evolve Electronic Medical Records (EMR) platform automates the creation, capture and handling of medical casenotes allowing healthcare providers to deliver better patient safety and quality of care. Evolve is a leader in Mobile-Enabled Healthcare software for iOS, transforming clinical outcomes for patients and healthcare providers.

Website: www.intouchhealth.com

InTouch Health provides technology-enabled services to healthcare providers for the delivery of high-quality clinical care virtually anywhere, anytime. The InTouch Telehealth Network empowers healthcare systems to deploy telehealth applications across their own enterprise, and into other care sites, such as non-affiliated hospitals, rehab centers, long-term care, clinics and homes. InTouch Health also offers physician services to assist healthcare systems in meeting their telehealth demands, and to address physician shortages.

Stand 5 – Medtronic

Email: ann.blythman@medtronic.com **Website:** www.medtronic.com

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Stand 2 – MYoroface

Email: terry.morris@myoroface.com **Website:** www.iqoro.com

MYoroface is the company that has researched, developed, produced, patented and registered IQoro®.

IQoro® helps people after stroke with problems with swallowing, facial paralysis, speech, Hiatus hernia, snoring or sleep apnoea, and more. IQoro® is a new and unique neuromuscular treatment method that requires just 30 seconds' exercise, three times per day.

www.iqoro.com is now a comprehensive knowledge hub where everything from the symptoms, to the underlying causes of post-stroke conditions are described, as well as how IQoro® treats and gets to the bottom of the fundamental problem. Dozens of patient stories give hope and inspiration.

Stand 6 – Nestlé

Email: stella.campbell@uk.nestle.com **Website:** www.nestlehealthscience.com

Nestlé Health Science, a wholly-owned subsidiary of Nestlé, is a health-science company engaged in advancing the role of nutritional therapy to change the course of health for consumers, patients and our partners in healthcare. Its portfolio of nutrition solutions, diagnostics, devices and drugs, targets a number of health areas, such as inborn errors of metabolism, paediatric and acute care, obesity care, healthy ageing, and gastrointestinal and brain health. Through investing in innovation and leveraging leading edge science, we bring forward innovative nutritional therapies with proven clinical, health economic value and quality of life benefits. Nestlé Health Science employs around 3,000 people worldwide and is headquartered near Lausanne, Switzerland. For more information, please visit our website.

Stand 18 – Nihon Kohden UK Ltd

Email: info@nihonkohden.co.uk **Website:** Nihonkohden.net

NIHON KOHDEN is one of Japan's leading players in medical technology development and manufacturing, we are renowned the world over for innovation, reliability and engineering quality, and have been manufacturing medical devices for more than 60 years. Nihon Kohden and apoplex medical technologies collaborate on game-changing stroke solutions. A patient's 6-lead ECG waveforms from a Nihon Kohden patient monitor are automatically, continuously transferred to apoplex medical technologies as soon as the patient is monitored in a hospital. After automatic analysis on their servers, clinicians receive reliable Stroke Risk Analysis reports the next morning to use as a basis for therapy decisions and further treatment options.

Stand C – Northern Ireland Chest Heart & Stroke

Email: rstarkey@nichs.org.uk **Website:** www.nichs.org.uk

NICHS is the local charity for the care and prevention of chest, heart and stroke illnesses. We work with people who have these conditions and their families, offering practical and emotional support at what can be a difficult time in their lives. Our support groups provide an opportunity to share experiences while benefitting from a structured programme of activities including rehabilitation, exercise and information. We do health promotion in schools, with the homeless and in workplaces. We fund research relating to prevention, treatment and care. We campaign at Assembly level for people and families who are affected by these conditions.

Stand 7 – NI Clinical Research Network NICRN

Email: info.NICRN@belfasttrust.hscni.net **Website:** www.nicrn.hscni.net

The Northern Ireland Clinical Research Network Stroke speciality was established in 2008. It is currently led by Dr Michael Power of the South Eastern Health and Social Care Trust and Mrs Carolee McLaughlin of the Belfast Health and Social Care Trust. We enable the research community, both service users and potential investigators to engage with and successfully deliver nationally important clinical trials and other high quality research by deploying a cadre of skilled and managed staff across all 5 HSC Trust and at present the Network deploys 7 staff members across the Trusts to facilitate the delivery of this research portfolio. Engagement is simple and all supporting documentation can be found on our website. So please get in touch and see what we can do next.

Stand D - NIMAST

Email: www.nimast.org.uk/contact **Website:** www.nimast.org.uk

NIMAST is the only multidisciplinary association for stroke in Northern Ireland and provides a forum for sharing best practice, disseminating service improvements and research findings. NIMAST also has significant influence on stroke service development, guidelines and stroke strategies, through direct co-operation with government, HSC and the Public Health Agency. NIMAST has strong links with stroke groups both in the UK and Ireland, including the Stroke Association and the UK Stroke Forum.

NIMAST can give you the opportunity to engage more fully with stroke service change and implementation, and help implement the things that you, as a front line stroke service provider, see as important.

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Stand 19 – Novacor UK Ltd

Email: enquiries@novacor.co.uk **Website:** www.novacor.co.uk

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Stand E – Royal College of Speech and Language Therapists

Email: info@rcslt.org **Website:** www.rcslt.org

The Royal College of Speech and Language Therapists (RCSLT) is the professional body for speech and language therapists in the UK, representing more than 17,000 members (around 500 in Northern Ireland). It facilitates and promotes research into the field of speech and language therapy – the care for individuals with communication, swallowing, eating and drinking difficulties. It promotes better education and training of speech and language therapists and is responsible for setting and maintaining high standards in education, clinical practice and ethical conduct. The RCSLT'S Giving Voice campaign is highlighting the importance of speech and language therapy by sharing the life-changing stories of those who have benefited from treatment and by demonstrating evidence of speech and language therapists' efficiency and value for money. For more information on RCSLT and Giving Voice visit our website.

Stand 13 – Saebo

Email: ukinfo@saebo.com **Website:** www.saebo.com

Saebo UK is a leading distributor of innovative technology for neurological rehabilitation.

We have affordable, evidence based therapy solutions for mobility and function.

Stand 11 – Silverlink Software Limited

Email: info@silverlinksoftware.com **Website:** www.silverlinksoftware.com

CaptureStroke is Silverlink's marketing leading care performance improvement system for stroke services. Offering Trusts full ownership of their data and real-time analytics to understand and measure performance throughout the care pathway, CaptureStroke forms part of Silverlink's best-of -breed modular solution portfolio. Silverlink has been a leading software supplier to the NHS for over 20 years, and design solutions based on an in-depth knowledge of NHS processes and requirements. Working in close collaboration with clinicians, Silverlink offers intuitive, intelligent data solutions that facilitate paperless and mobile working that goes beyond basic SSNAP reporting requirements for meaningful insights into Stroke care delivery.

Stand 12 – SSNAP/Royal College of Physicians

Royal College of Physicians | Sentinel Stroke National Audit Programme (SSNAP)

Email: stroke@rcplondon.ac.uk **Website:** www.rcplondon.ac.uk/ssnap

The Sentinel Stroke National Audit Programme is the single source of stroke data for Northern Ireland. The SSNAP Clinical Audit provides regular reports on stroke care at team level, Local Commissioning Group (LCG) level and national level to help inform quality improvement.

Stand A – Stroke Association

Stroke association

Email: info@stroke.org.uk **Website:** www.stroke.org.uk

Stroke Association is a charity. We believe in life after stroke together we can conquer stroke. We work directly with stroke survivors and their families and carers, with health and social care professionals and with scientists and researchers. We campaign to improve stroke care and support people to make the best recovery they can. We fund research to develop new treatments and ways of preventing stroke. The Stroke Helpline (0303 303 3100) provides information and support on stroke. More information can be found on our website.

Stand 16 – Stryker

stryker

Email: enquiries@stryker.com **Website:** www.stryker.com

Stryker is focused on advancing the practice of less invasive stroke therapies through its Complete Stroke Care solutions. Stryker is dedicated to providing innovative stroke products and services for ischemic and haemorrhagic stroke, and committed to providing clinical education and support to help physicians deliver better patient outcomes. Products include: stent retriever, detachable coils, stents, balloons, guidewires and microcatheters.

Stand B – The Magic Project

magic

Email: SBRI.PMO@hscni.net **Website:** www.magic-pcp.eu

Business Services Organisation (BSO) provides a broad range of regional businesses support functions and specialist professional services to the Health and Social Care sector in Northern Ireland. MAGIC is a European Commission Co-Funded Pre-Commercial Procurement Project focused on the development of ICT based solutions to improve the well-being of patients and optimise the opportunity for recovery post-stroke. BSO leads and co-ordinates the MAGIC consortium. Other NI participants are the Health and Social Care Board, the Public Health Agency, Invest NI and the University of Ulster. Other member states involved in the consortium are Ireland, Italy, Finland, Spain, Luxembourg and Denmark.

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Treatment of deep vein thrombosis (DVT) and pulmonary embolism (PE), and prevention of recurrent DVT and PE in adults

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See summary of product characteristics prior to prescribing for full list of adverse events

Presentation: 60 mg (yellow)/30 mg (pink)/15 mg (orange) edoxaban film coated tablets (as tosilate). **Indications:** Prevention of stroke and systemic embolism in adult patients with nonvalvular atrial fibrillation (NVAF) with one or more risk factors, such as congestive heart failure, hypertension, age ≥75 years, diabetes mellitus, prior stroke or transient ischaemic attack (TIA) and treatment of deep vein thrombosis (DVT) and pulmonary embolism (PE), and prevention of recurrent DVT and PE in adults. **Posology and method of administration:** *NVAF* – The recommended dose is 60 mg edoxaban once daily with or without food. Therapy with edoxaban in NVAF patients should be continued long term. *VTE* – The recommended dose is 60 mg edoxaban once daily following initial use of parenteral anticoagulant for at least 5 days with or without food. Duration of therapy (at least 3 months) should be based on risk profile of the patient. For NVAF and VTE the recommended dose is 30 mg edoxaban once daily in patients with one or more of the following clinical factors: moderate or severe renal impairment (creatinine clearance (CrCL) 15–50 ml/min), low body weight ≤60 kg and/or concomitant use of the following P-glycoprotein (P-gp) inhibitors: ciclosporin, dronedarone, erythromycin, or ketoconazole. The 15 mg dose of edoxaban is not indicated as monotherapy, and should only be used during a switch from edoxaban to VKA (see SmPC for full details). If a dose of edoxaban is missed, the dose should be taken immediately and then continued once daily on the following day. **Contraindications:** Hypersensitivity to the active substance or to any of the excipients; clinically significant active bleeding. Hepatic disease associated with coagulopathy and clinically relevant bleeding risk. Lesion or condition, if considered to be a significant risk for major bleeding. This may include current or recent gastrointestinal (GI) ulceration, presence of malignant neoplasms at high risk of bleeding, recent brain or spinal injury, recent brain, spinal or ophthalmic surgery, recent intracranial haemorrhage, known or suspected oesophageal varices, arteriovenous malformations, vascular aneurysms or major intraspinal or intracerebral vascular abnormalities. Uncontrolled severe hypertension. Concomitant treatment with any other anticoagulants e.g. UFH, low molecular weight heparins, heparin derivatives (fondaparinux, etc.), VKA or NOACs except under specific circumstances of switching oral anticoagulant therapy or when UFH is given at doses necessary to maintain an open central venous or arterial catheter. Pregnancy and breastfeeding. **Special warnings and precautions for use:** Haemorrhagic risk: Use with caution in patients with increased risk of bleeding such as elderly on ASA and should be discontinued if severe haemorrhage occurs. 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Concomitant high dose ASA (325 mg) or chronic NSAIDs is not recommended. There is very limited experience with dual antiplatelet therapy or fibrinolytic agents. **Undesirable effects:** Common: anaemia, epistaxis, lower GI haemorrhage, upper GI haemorrhage, oral/pharyngeal haemorrhage, nausea, blood bilirubin increased, gamma GT increased, cutaneous soft tissue haemorrhage, rash, pruritus, macroscopic haematuria/urethral haemorrhage, vaginal haemorrhage, puncture site haemorrhage, liver function test abnormal. Uncommon: hypersensitivity, intracranial haemorrhage (ICH), intraocular haemorrhage, other haemorrhage, haemoptysis, surgical site haemorrhage. Rare: anaphylactic reaction, allergic oedema, subarachnoid haemorrhage, pericardial haemorrhage, retroperitoneal haemorrhage, intramuscular haemorrhage (no compartment syndrome), intra-articular haemorrhage, subdural haemorrhage, procedural haemorrhage. **Legal category:** POM. **Package quantities and basic NHS costs:** 60 mg/30 mg – 28 tablets £51.80; 15 mg – 10 tablets £18.50. **Marketing Authorisation (MA) number:** EU/1/15/993/001–16. **MA holder:** Daiichi Sankyo Europe GmbH, Zielstattstrasse 48, 81379 Munich, Germany. **Date of prep of PI:** May 2016. EDX/15/0150(2).

Adverse events should be reported. Reporting forms and information can be found at yellowcard.mhra.gov.uk. Adverse events should also be reported to Daiichi Sankyo UK Medical Information on 0800 028 5122, medinfo@daiichi-sankyo.co.uk

References: 1. NICE Technology Appraisal 355. Edoxaban for preventing stroke and systemic embolism in people with non-valvular atrial fibrillation. September 2015. Available at: www.nice.org.uk/guidance/ta355 Accessed September 2015. **2.** NICE Technology Appraisal 354. Edoxaban for treating and for preventing deep vein thrombosis and pulmonary embolism. August 2015. Available at: www.nice.org.uk/guidance/ta354 Accessed September 2015. **3.** Scottish Medicines Consortium. SMC No. (1095/15). edoxaban (Lixiana) for NVAF. Available at: http://www.scottishmedicines.org.uk/files/advice/edoxaban__Lixiana__NVAF_FINAL_October_2015_Amended_03.11.15.pdf Accessed: May 2016. **4.** Scottish Medicines Consortium. SMC No. (1095/15). edoxaban (Lixiana) for NVAF. Available at: http://www.scottishmedicines.org.uk/files/advice/edoxaban__Lixiana__VTE_FINAL_October_2015_Amended_26.10.15___03.11.15_for_website.pdf Accessed: May 2016. **5.** Giugliano RP *et al. NEJM* 2013;369(22):2093–2104. **6.** The Hokusai-VTE Investigators. *NEJM* 2013;369(15):1406–1415. **7.** LIXIANA®, Summary of Product Characteristics.

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Daiichi-Sankyo

High Scoring Abstracts for Oral Presentation

Secondary Prevention

1. Stroke Prevention Rehabilitation Intervention Trial of Exercise (SPRITE) - A Randomised Feasibility Study

Heron N[123], Kee F[123], Mant J[4], Reilly PM[5], Donnelly M, Cupples ME[123].

[1]Dept of General Practice and Primary Care, Queen's University, Belfast; [2]Centre for Public Health Research, Queen's University, Belfast; [3]Centre of Excellence for Public Health Research (NI); [4]Primary Care Unit, Department of Public Health and Primary Care, University of Cambridge, Strangeways Research Laboratory, Cambridge, UK; [5]Patient and Public Involvement (PPI) representative for SPRITE studies.

Introduction: Cardiac rehabilitation post-myocardial infarction is beneficial but its value after a transient ischaemic attack (TIA) or minor stroke is untested despite these conditions sharing similar pathology. This study's primary objective was to test the feasibility of conducting a randomized controlled trial (RCT) of a novel home-based rehabilitation programme, adapted for patients with a TIA/minor stroke.

Method: Patients within 4 weeks of a first TIA or minor stroke of atherosclerotic or small vessel disease origin were randomly allocated to: (1) standard/usual care; (2) home-based rehabilitation manual or (3) manual plus pedometer. Participants received telephone support from a General Practitioner (GP) at 1 and 4 weeks, and were invited for re-assessment at 6 weeks. Views regarding the manual and study methods were explored in a focus group.

Results: Approximately one quarter (28/107) of clinic attendees (15 men; 13 women) agreed to be contacted by the researcher. Our target sample of 15 (10 men, 5 women; mean age 69 years) was recruited from clinics in one hospital over an 18-week period and from the 28 eligible patients (54%): all completed the study. Group 3 increased pedometer step-counts (mean steps/day 8,356 to 9,763). In Groups 2 and 3 sedentary time fell (mean -1.6 hrs, SD -1.52; -1.2 hrs, SD -1.1) and anxiety and depression and diet improved. The manual was welcomed, particularly regarding its information about stroke signs and symptoms. Pedometers were valued, particularly for goal-setting. Participants drew support from others' experiences and requested that a 'patient story' be added to the manual.

Conclusion: Our findings indicate that a RCT of a novel home-based rehabilitation programme, 'The Healthy Brain Rehabilitation Manual', initiated within 4 weeks of a first TIA/minor stroke, and with 6-week follow-up is feasible and has potential to improve health. For the next stage in the interventions development, the manual's content will be revised and a patient's story included.

Exercise after stroke

2. Effect of IQoro® training on impaired postural control and oropharyngeal motor function in patients with dysphagia after stroke

Hägg M [1], Tibbling L [2 1].Speech and Swallowing Centre, Department of Otorhinolaryngology, Hudiksvall Hospital, County Council of Gävleborg, Hudiksvall, Sweden, [1].Centre for Research and Development, Uppsala University, Uppsala, Sweden, [2] Department of Otorhinolaryngology, Linköping University, Linköping, Sweden.

Introduction: The investigation studied the frequency of Impaired Postural Control (IPC) in patients with stroke-related dysphagia, and the effect of IQoro® training on IPC and Oropharyngeal Motor Dysfunction (OPMD). IQoro® is a neuromuscular training device requiring 1½ minutes' training per day.

Method: A prospective clinical study was carried out with 26 adult patients referred by clinicians, with stroke-related dysphagia after first stroke. The study comprised two groups: the first of 15 patients who had suffered stroke more than 6 months before, the second group less than one month before. The IQoro® training period was 3 months in all cases. Postural control tests and oropharyngeal motor tests were performed before training commenced, after the training period, and at a late follow-up (median 59 weeks after training).

Results: All patients showed pathological values for all OPM measures at baseline. All parameters measured, including OPMD, showed significant improvements at completion of IQoro® training: and in both groups. Swallowing Capacity Tests showed an average improvement of 6.0ml/sec after training even in the late intervention group. 25 of 26 patients exhibited misdirected swallowing at baseline, and only two at late follow-up: IPC was not improved in these two individuals either. Five patients were fed via PEG at baseline, all were capable of oral feeding after training, and four had their PEGs removed. Timing of intervention commencement after stroke was not significant in any way.

Conclusion: All patients with dysphagia after stroke have IPC. IQoro® training delivers significant and enduring improved patient outcomes in treatment of IPC and OPMD.

Service development (research)

3. Post-Stroke Ankle-Foot Orthoses: Examining Referral Trends in the Scottish Multi-DisciplinaryTeam

Morrow EM[1], Bowers RJ[1] [1]University of Strathclyde, Glasgow, UK

Introduction: Best Practice Statement: Use of Ankle-Foot Orthoses Following Stroke (BPS) asserts 'any member of the MDT [Multi-Disciplinary Team] can refer a patient for orthotic assessment'; this is supported by ISPO Consensus Conference on Stroke. The intention of this study was to 1) assess awareness of the BPS 2) assess referral trends for AFOs of the MDT and 3) identify barriers to referral to orthotics in Scotland.

Method: A survey of clinicians was conducted, inclusion criteria being members of the Scottish Stroke MDT. An online survey was distributed via Scottish Stroke AHP Forum, Scottish Stroke Nurses Forum, British Association of Stroke Physicians and Scottish Stroke MCNs.

Results: Statistically significant association was found between:

- Awareness of BPS and NHS Board Area;
- Profession and whether clinicians have previously referred to orthotics;
- Confidence in assessment criteria and profession;
- Referral to departments other than Orthotics and profession.

Nurses, social workers and OTs are unlikely to refer for AFOs; GPs and stroke physicians refer but are not confident in referral criteria; all depend on physiotherapists to assess and refer. The primary barrier to referral was a limited ability to define mobility problems. Physiotherapists identify different barriers: long waiting lists and a lack of joint clinics. GPs have a low awareness of the BPS.

Conclusion: Physiotherapists are relied upon by the Stroke MDT to identify mobility problems and refer to Orthotics. The BPS should be re-disseminated to identified groups to improve awareness and confidence in referral criteria. Reduced waiting list times and joint clinics may reduce barriers to orthotics.

Acute Care

4. Head Position in Stroke Trial (HeadPoST) results: implications for clinical practice

C. Elizabeth Lightbody, Denise Forshaw and Caroline Watkins, for the HeadPoST Steering Committee, Investigators and Coordinators, University of Central Lancashire, Preston, Lancashire

Introduction: Uncertainty has existed over the optimal head position for patients with acute ischaemic stroke (AIS) or intracerebral haemorrhage (ICH). Any potential benefits of lying flat in AIS (ie increased collateral blood flow) may be offset by increased risks of pneumonia and cardiorespiratory dysfunction, whilst sitting up may reduce cerebral oedema in large hemisphere AIS and ICH. The aim of this study was to compare the effects of lying flat (0°) with sitting up (≥30°) body position in the first 24 hours of admission for patients with acute stroke on functional outcome, defined by shift in scores on the modified Rankin scale (mRS) at 90 days.

Method: An international, multicentre, prospective, cluster randomized, cross-over clinical trial conducted across 114 hospitals in nine countries during 2014-2016. Clusters of a target of 70 consecutively admitted stroke patients were positioned to each randomised position according to a standardised protocol as policy of usual care to reduce selection bias and contamination. Centralised blinded mRS assessment was undertaken at 90 days, reducing observer bias. Sample size calculations were to detect ≥16% shift in functioning on 90-day mRS using ordinal logistic regression.

Results: 11,094 patients were recruited (mean age 68 yr, 60% male, 91% ischemic). Adherence to each randomised head position and follow-up were excellent. There were no significant differences in the effects on the primary outcome, or serious adverse events including death and pneumonia.

Conclusion: No clear benefits or harms were evident from specific head positioning in acute stroke. These results provide reassurance that head positioning per se is not relevant to stroke outcomes.

5. Outcomes after thrombectomy in Belfast: a comparison of drip and ship versus mothership paradigms

Adams K[1], Burns P[2], Hunter A[3], Diamond A[2], OReilly S[2], McKenna B[2], Flynn P[2], Rennie I[2], Smyth G[2], Kerr E[1], Fulton A[1], Gordon P[1], Patterson C[1], Watt M[3], Roberts G[1], Wiggam MI[1]Departments of 1Stroke Medicine, [2]Neuroradiology and [3]Neurology, Royal Victoria Hospital Belfast.

Introduction: There is debate as to whether patients with large vessel occlusion (LVO) should be admitted to a local hospital followed by transfer for thrombectomy (drip and ship–DS) or routed directly to a thrombectomy centre (mothership – MS). Our aim was to compare outcomes of patients who underwent thrombectomy in a DS v MS paradigm.

Method: Thrombectomy data was prospectively collected in a single centre serving Northern Ireland over a 3 year period. Inclusion criteria were LVO (including basilar), ASPECTS score >5 (if anterior) and favourable CT perfusion. The main outcome measure was mRS <3 at 3 months.

Results: 146 patients underwent thrombectomy (DS 59, MS 87). Median NIHSS was similar (DS 15.5, MS 15.0). The DS group were younger (65 v 71 years, $p<0.05$). The DS group arrived at the thrombectomy centre 230 min after onset, v 91 min in the MS group, $p<0.001$). Time from arrival to groin puncture was shorter in DS (37 v 91 min, $p<0.05$). mRS<3 at 3 months was achieved by 59% in DS v 53% in MS ($p=0.5$). The DS group were less likely to achieve full recovery (mRS 0) (9% v 26%, $p<0.01$).

Conclusion: Functional independence (mRS<3) at 3 months was similar in both groups, but more MS patients made a complete recovery. It is likely the DS group represented those with slower ASPECTS decay, thus meeting the criteria for thrombectomy despite later presentation at the thrombectomy centre. Rapid access to thrombectomy remains essential to optimise both the number of patients treated and the outcomes achieved.

Vision

6. Untreated visual deficits and length of stroke inpatient admissions: is there a link?

Wright D[1], Donnelly C[2], [1]Orthoptic Dept, Altnagelvin Area Hospital, [2]Orthoptic Dept, South West Acute Hospital

Introduction: Since 2008, three sessions per month were offered in Altnagelvin Area Hospital in which stroke patients with a suspected visual defect could be assessed and treated. Patients in the South West Acute Hospital were seen on an ad hoc basis. According to stats for 2014/15, 19% of stroke survivors in Altnagelvin were diagnosed with a new-onset visual defect, while research shows visual defects to be present in up to 70% of these patients. Since June 2015, funding from Integrated Care Partnerships has provided 7 weekly Orthoptic stroke sessions across the WHSCT. This audit was conducted to determine the impact of Orthoptic screening on the rate of detection of visual defects and on the length of hospital stay for patients with a visual defect.

Method: Comparisons of case detection; waiting times for assessment; and length of admission were made between stroke survivors in 2014/15 (pre-screening) and 2015/16 (screened).

Results:

- During the first 12 months of the service, 311 patients were screened (81% of stroke survivors)
- 39% of stroke survivors were found to have a new-onset visual defect (a 105% increase)
- 36 patients from each group were eligible for analysis of their length of stay. For patients with a new-onset visual defect, a mean reduction of 3.66 days was found in the screening group compared to the non-screened group. This could equate to a trust-wide saving of 514 bed days annually.

Conclusion: Orthoptic screening of stroke survivors improves the detection rate of visual defects by 105%; influences rehabilitation; and leads to shorter hospital admissions.

Other

7. DOACs: Getting it Right!

Rogers L[1], Healy R[2], Austin J[1], Connolly D[2], Crawford E[1], Fearon P[1], Gordon PL[1], Kinnard M[1], O'Donnell S[1], Patterson CE[1]
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[2]Altnagelvin Hospital, WHSCT

Introduction: Prescription of DOACs as a form of anticoagulation has increased significantly over last 5 years. Substantial risk is associated with their use. Careful prescribing is recommended taking into account age, weight and renal function. Co-prescribing with other antithrombotics has led to potential and actual serious harm for patients. Introduction of education and a checklist aims to improve this. This project was carried out in collaboration between the Belfast Health and Social Care Trust and Western Health and Social Care Trust.

Method: Retrospective baseline audit of DOAC prescribing over 3 months, followed by implementation of several improvement measures (including use of a bespoke anti-thrombotic page in the regional medicine kardex) with continuous data collection during this time. Staff and User feedback collected and analysed.

Results: Baseline safety compliance for DOAC prescribing was 50% in BHSCT Stroke Unit.
Following several interventions including joint working with the Western Health and Social Care trust, this improved to 100%.

Conclusion: Targeted education and use of a checklist improves the safety of DOAC prescribing.
This is further enhanced by use of a dedicated antithrombotic page in the kardex and should be considered regionally.

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Severe (creatinine clearance 15-29ml/min) - limited data indicate rivaroxaban concentrations are significantly increased, use with caution. *15mg/20mg* - moderate & severe renal impairment - limited data indicate plasma concentrations are significantly increased, use with caution – *SPAF:* reduce dose to 15mg *o.d., DVT & PE:* 15 mg *b.i.d.* for 3 weeks, thereafter 20mg *o.d.* Consider reduction from 20mg to 15mg *o.d.* if patient's bleeding risk outweighs risk for recurrent DVT & PE; *All strengths* - Creatinine clearance <15 ml/min - not recommended. ***Hepatic impairment:*** Do not use in patients with coagulopathy & clinically relevant bleeding risk including cirrhotic patients with Child Pugh B & C ***Paediatrics:*** Not recommended. **Contra-indications:** Hypersensitivity to active substance or any excipient; active clinically significant bleeding; lesion or condition considered to confer a significant risk for major bleeding (refer to SmPC); concomitant treatment with any other anticoagulants except under specific circumstances of switching anticoagulant therapy or when unfractionated heparin is given at doses necessary to maintain an open central venous or arterial catheter; hepatic disease associated with coagulopathy & clinically relevant bleeding risk including cirrhotic patients with Child Pugh B & C; pregnancy & breast feeding. *2.5mg* - concomitant treatment of ACS with antiplatelet therapy in patients with a prior stroke or transient ischaemic attack. **Warnings & precautions:** Clinical surveillance in line with anticoagulant practice is recommended throughout the treatment period. 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References: 1. Xarelto® (rivaroxaban). Summary of Product Characteristics, as approved by the European Commission. **2.** Eliquis® (apixaban). Summary of Product Characteristics, as approved by the European Commission. **3.** Pradaxa® (dabigatran). Summary of Product Characteristics, as approved by the European Commission. **4.** Lixiana® (edoxaban). Summary of Product Characteristics, as approved by the European Commission.

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Posters

Acute Care

01. A quality improvement project of a stroke thrombolysis pathway

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Introduction: There is a national recommendation to ensure patients have access to thrombolysis and hyper-acute stroke unit (HASU) care for acute stroke. Thrombolysis service was not available at Barnsley Hospital due to staffing changes from September 2016. A new thrombolysis pathway was developed with collaboration from Barnsley Hospital, local hospitals and Yorkshire Ambulance Services (YAS) to ensure ongoing access to thrombolysis for Barnsley patients. Patients identified with acute stroke, suitable for thrombolysis, were assessed and transferred to the nearest thrombolysis centre for treatment.

Method: The pathway was developed through local meetings in Barnsley Hospital within the stroke team. This was then presented to neighbouring hospitals and YAS. The pathway was agreed and actioned. Data was retrospectively collected through repatriated patients' case note review between September-December 2016.

Results: A total of 27 Barnsley patients were transferred to 4 neighbouring hospitals for assessment between September-December 2016. 5 patients underwent thrombolysis. Mean time of symptom onset to arrival at neighbouring centre was 1hr 42mins. Patients were repatriated with a mean time of 5hrs 40mins. Transfer of patient documentation was generally low. Between August 2015-August 2016 average thrombolysis rates were 3.25 per month. Since the pathway was introduced between September-December 2016 the thrombolysis rate has reduced to 1.3 per month.

Conclusion: There are plans for thrombolysis and HASU care within South Yorkshire to go through significant change in the near future. Ongoing quality improvement of the repatriation pathway including communication, effective hand-over of patients and appropriate and timely thrombolysis is crucial to maintaining patient safety and standards.

02. SWALLOW SCREENING - Does pneumonia incidence improve?

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Introduction: Dysphagia after stroke is related to a high risk of aspiration, pneumonia, disability and death. Swallowing screening aims to identify individuals that may have dysphagia and require a specialist assessment. Consensus about the procedure remains strong in practice although there is no robust supporting data.

Method: Articles in English (<5 years) were searched in several databases using: <<stroke OR "cerebrovascular accident" AND dysphagia OR swallow AND screening OR evaluation AND pneumonia OR chest infection>>. Only 3 articles met the inclusion criteria.

Results: Sorensen (2013) reported pneumonia in 7% (96.5% SS performed) and 28% (58.3% SS performed). Masrur (2013) found patients with HAP had a higher initial NIHSS score (10 vs 4), swallow screening performed more often (75.5% vs 68.5% - OR 1.1) and increased mortality (12.4% vs 2.3%). Bray (2016) found increased incidence of HAP (13.8% vs 8%) and 30-day mortality (34.6% vs 10.2%) in the group where no swallow screening was performed. Patients in the fourth quartile (> 344 minutes) had higher risk to develop SAP (OR 1.33). Considering NIHSS in the analysis showed risk of 36% (aOR 1.36). An association was found between delays in screening and incidence of HAP.

Conclusion: The relationship between swallow screening and HAP in Masrur (2013) is biased by the high rate of missing data and swallow screen not performed. Sorensen (2013) found incidence 21% higher (28% vs 7%) in the control group but methods limitations should be considered.
Bray (2016) found an association between delays in screening and HAP. These findings support the stroke guidelines despite further studies are needed.

Assistive Technology

03. A review of assistive technologies - exploring the effects on upper limb function with conventional therapy and the feasibility of their implementation

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Introduction: The nice guidelines 2010 state that patients should receive 45 minutes of each relevant therapy 5 days a week. Finical pressures and limited budgets, with a reduced number of therapists and an increasing number of more dependent patients makes this challenging, if not impossible, on a day to day basis. Assistive technologies could enable patients to engage in a variety of therapies independently or whilst supervised by an assistant, freeing up clinical time for qualified therapist to continue with complex treatments or assessments. This study will compare neuromuscular stimulation, virtual reality and robotic technology with conventional therapy.

Method: MMU database used to perform a search from 2012 to present using the key words "neuromuscular stimulation" or "virtual reality" or "robotics" with "acute stroke" and "upper limb

function". Studies were excluded if the technology was not used in acute stroke rehabilitation, if a very small sample size was used, less reliable outcome tools were used or the technology was used in conjunction with another treatment modality.

Results: No significant differences were found between the assistive technologies and conventional therapy. All technologies demonstrated an improvement in function, using the Action Research Arm Tool (ARAT), pinch and grip strength and Fugl-Meyer assessment (FM), over time.

Conclusion: Cochrane reviews demonstrate that there is only low to moderate quality evidence into assistive technologies. Further research is required into this area prior to a change in guidelines. However, patients enjoyed the variety within their rehabilitation; money could be saved long term and therapists time could be used more efficiently.

Case reports and interesting cases

04. Bi-Thalamic and Mid-brain Infarct: Artery of Percheron (AOP) Syndrome

1. Hassan. MS, 2.Stoppard E, 3. Albazy L, 4. Gaba W.
Department of Stroke Medicine Airedale General Hospital and Bradford Teaching Hospital, West Yorkshire, UK.

Introduction: The thalami and midbrain share a complex blood supply. Occlusion of Artery of Percheron (AOP), a rare anatomic variant, in which a single arterial trunk arises from Posterior Cerebral Artery, causes a bilateral para-median thalamic infarct with or without rostral mid-brain infarct. AOP stroke is characterized by three cardinal features of vertical gaze palsy, memory impairment and coma. AOP infarction accounts for 0.1% to 0.3% of all ischemic strokes of which up to one third are associated with thalamic infarction.

Case report - A 49-year-old lady with background history of diabetes mellitus type 2, hypertension and dyslipidaemia was admitted after collapse at home. On examination she was tachycardic and hypertensive. Her Glasgow Coma Scale (GCS) was 7 with fluctuating conscious level. Her speech was slurred and hypophonic. She had a complete right sided ptosis; dilated and fixed right pupil, vertical gaze palsy and, right facial palsy. She was also quadriperetic. CT scan of head was normal. IV thrombolytic therapy was given. Echocardiogram, ECG, and seven day Holter monitoring were all normal. Stroke in young workup including complete vasculitis and thrombophilia screen were negative. Repeat CT brain next day showed acute bilateral para-median thalamic and mid-brain hypodensity. However, CT Angiogram of head and neck was unremarkable. She is making good progress with ongoing rehab in stroke unit.

Discussion: Thalamus has a variable blood supply which overlaps with midbrain. Clinical signs and comprehensive radiological imaging helps diagnosing AOP infarct. AOP is not always easily seen in conventional angiographic imaging as this vessel is very minute.

References:

1. Teoh HL, Ahmad A, Yeo LL, Hsu E, Chan BP, Sharma VK: Bilateral thalamic infarctions due to occlusion of artery of Percheron. J Neurol Sci. 2010 Jun 15; 293(1-2):110-1.
2. Raphaeli G, Liberman A, Gomori J, Steiner I: Acute bilateral paramedian thalamic infarcts after occlusion of the artery of Percheron. Neurology 2006, 66:7.
3. Shea YF, Lin OY, Chang RSK, Luk JKH. Artery of Percheron infarction. Hong Kong Med J. 2012;18:446. e1–2. [PubMed]

05. A Run too FAST

Adams K [1], Gordon PL [1], Acute Stroke Unit, Royal Victoria Hospital, Belfast Health and Social Care Trust

We describe the case of a 26 year old with no significant past medical history who attended the emergency department following a collapse at the finish line of a half marathon.

Investigations identified acute kidney injury, rhabdomyolysis, deranged liver function tests with a mildly elevated bilirubin and significant transaminitis. Platelets were normal however fell to 98 on day 3 before gradually returning to normal over the following days. Coagulation screen revealed a slightly elevated prothrombin time of 13.50 but was otherwise unremarkable.

The patient's cognition improved but he continued he had no recollection of events surrounding the race. An MRI showed small areas of acute infarction in both cerebellar hemispheres. CT angiogram revealed a right sided aortic arch with no other abnormalities. An echocardiogram confirmed the previously undiagnosed dextrocardia with situs inversus, however, the heart was structurally normal with no evidence of an intra-cardiac shunt. 24 hour ECG showed no evidence of arrhythmia.

Initial working diagnosis was that of a hypoperfusion injury or embolic shower of uncertain cause and antiplatelet therapy was initiated. In light of the transient thrombocytopenia a haematology opinion was sought.

Findings were consistent with haemolysis, with features of muscle breakdown. He was diagnosed with March Haemoglobinuria, a direct consequence of running the half marathon which is caused by red cell intravascular haemolysis. Haemolysis causes vasoconstriction due to the effect of plasma haemoglobin, which is the likely cause of his cerebellar infarcts, acute kidney and liver injury. Further blood tests excluded other haemolytic disorders.

06. A case of pontine infarct demonstrating the importance of eye position on CT imaging

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Introduction: Eye position, which may be seen on CT imaging, has previously been documented as an important sign of early middle cerebral artery ischaemia. Pontine infarcts may also present with abnormalities of eye position, diagnosis of which may be aided by eye position on CT imaging.

Method: A 74 year old gentleman presented to the emergency department with sudden onset diplopia while walking his dog. He had a history of previous spontaneous pulmonary embolisms, for which he was anticoagulated with warfarin (INR 2.5). On examination there was lateral deviation of his right eye and he was unable abduct or adduct his left eye, in keeping with one-and-a-half syndrome.

Results: Initial CT of the brain was unremarkable; however, lateral deviation of the right eye was seen on the images. This was consistent with a paralytic pontine exotropia. T2 and diffusion-weighted MRI later showed a high signal in the posterior pons to the left of the midline, confirming the suspected

diagnosis of a left paramedian pontine infarct. He was managed with anti-platelet therapy and secondary prevention.

Conclusion: Our case further highlights the importance of eye position in the diagnosis of acute stroke. The initial CT scan was normal, other than a right exotropia, which proved to be an important clue to the diagnosis of a pontine infarct, later seen on MRI.

07. Is there a link between Migraine and Bell's palsy?

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Introduction: Migraine is quite common, with an annual global prevalence of about 10%. Research suggests that patients with migraine have almost double the risk of developing Bell's palsy. We present a patient who was referred to us as an Acute Stroke.

Method: Case Report: 32 years old male presented with sudden slurred speech, right face, arm and leg weakness with no associated headache. Past medical history includes hypertension, hyper-lipidemia and migraine. He was current smoker with 15 pack years. He denies any alcohol or illicit drug. On examination he was normotensive, and had expressive dysphasia, right LMN facial palsy, right arm pronator drift and right leg drift. NIHSS was 6. CT brain was normal. ECG showed sinus rhythm. He was offered thrombolysis but he refused and self-discharged. Next day he was seen in TIA clinic where he reported worsening of his symptoms and was admitted to Stroke Unit. Extensive stroke workup including MRI & MRA brain, Echocardiogram, 24 hour ECG, Carotid Doppler, Vasculitis & Thrombophilia Screen was normal.

He made good recovery and was discharged home with follow-up in six weeks when he described recurrent headaches with visual aura. Symptoms were relieved by Sumatriptan. He had no focal neurology except residual right LMN facial palsy. His repeat MRI Brain was normal. He was seen by our Neurologist and we made a final diagnosis of Hemiplegic Migraine with Bell's palsy.

Results: Discussion: Bell's palsy and migraine might share a common pathogenesis. Further research is needed to establish this causal relationship.

Conclusion: References:

1. Migraine May Double Bell Palsy Risk By Mark L. Fuerst January 13, 2015

2. Migraine Linked to Risk for Bell's Palsy. Pauline Anderson. Medscape. Dec 18, 2014.

3. Increased risk of Bell palsy in patients with migraine. A nationwide cohort study. Neurology January 13, 2015 vol. 84 no. 2 116-124

Kuan-Po Peng, MD*, Yung-Tai Chen, MD*, Jong-Ling Fuh, MD, Chao-Hsiun Tang, PhD and Shuu-Jiun Wang, MD

08. Pyroglutamic acidosis: a rare stroke mimic

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Introduction: Many conditions can mimic acute stroke. Accurate diagnosis is important, as some require urgent management. Pyroglutamic acidosis is an under-diagnosed cause of a high anion gap metabolic acidosis (HAGMA), which has been reported to present with acute neurological features.

Method: We reviewed the case of a patient who presented to the Royal Victoria Hospital.

Results: A 67-year-old female with a background of bipolar disorder, type 2 diabetes mellitus, hypertension, and chronic kidney disease presented as a stroke lysis call with dysphasia, dysarthria, and facial droop. The patient was outside the time window for thrombolysis. No acute abnormality was detected on CT brain, CT angiography, or MRI brain. The patient was subsequently diagnosed with a multi-factorial acute kidney injury, E. coli urosepsis, lithium toxicity, and a HAGMA. Serum lactate and ketone levels were normal. The patient's renal function and inflammatory markers improved with appropriate management; however, the HAGMA persisted. Specialist advice was sought. Elevated levels of pyroglutamic acid were detected in a urinary organic acid profile. Paracetamol and antibiotics were discontinued, and oral sodium bicarbonate was initiated. At discharge, both the HAGMA and neurological symptoms completely resolved.

Conclusion: Pyroglutamic acidosis is a rare stroke mimic. It is associated with drugs including paracetamol, flucloxacillin, and alcohol, malnutrition, pregnancy, renal failure, liver failure, female gender, and sepsis. Withdrawal of causative agents is the mainstay of treatment, although sodium bicarbonate and N-acetylcysteine are sometimes used. Early clinical diagnosis is important as results may take several days and laboratory testing is not widely available.

Other

09. An Investigation of the Challenges that Therapists Perceive in Rehabilitation of Upper Limb Following Stroke

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Introduction: Upper limb (UL) rehabilitation following stroke has low success rates that fluctuate between 15% and 20%. Understanding the challenges that therapists face with post- stroke UL rehabilitation could enable application of appropriate interventions and a better allocation of resources.

Method: Data was gathered from an open question answered by 87 therapists, in an open online course, delivered by Sheffield Hallam University (SHU) in June 2016. Participants included physiotherapists and occupational therapists from a wide range of countries. They were asked to explain the challenges they face in post- stroke UL rehabilitation. The project was approved by SHU Faculty of Health and Wellbeing Research Ethics Committee and no course participants asked to have their comments withdrawn. Thematic analysis was conducted and participants categorized according to their key challenges, to explore any differences between countries or professions.

Results: The feeling of uncertainty suggests that therapists felt daunted by the severity and complexity of stroke, the range of assessment and treatment options, the lack of a defined professional role in rehabilitation, and unclear evidence. The lack of knowledge and skills included difficulty communicating with stroke survivors, particularly the more severely affected, and a lack of experience in helping stroke survivors to exercise independently of the therapist.

Conclusion: These findings suggest a need for training focused on achieving a research-informed, whole- person approach to rehabilitation, along with the communication skills required to negotiate goals and rehabilitation plans with stroke survivors. Guidelines could be developed to assist clinicians in prioritizing rehabilitation aims.

10. 'Lunch Club' - a therapy-led service improvement promoting multi-faceted stroke rehabilitation

Godsall R (OT), Walkden J (physio), Hewitt E & Olczak C (SLTs), Mudd P(Dr) - Royal Devon and Exeter Hospital NHS Foundation Trust

Introduction: Attending a communal space for lunch could serve rehabilitative functions. Our concept was to create a normalised setting, detached from the ward environment, in which to supplement and consolidate individual therapeutic management. The multidisciplinary team discussed how patients might benefit in terms of their mobility, communication, swallowing, mood and social skills. The RCP guidelines for Stroke (2016) advocate activities that increase social participation.

Method: Our 28 bed ward cares for hyperacute & acute stroke patients and those continuing rehabilitation until a suitable community hospital or therapy team is available. Patients are considered for Lunch Club if they show interest and are likely to benefit from the full 60 minute session. Patients may sit unsupported or use a supportive wheelchair or tilt in space chair. Normal and modified diets are acceptable. Patients requiring support for fine or gross upper limb movement are supported by therapy staff and appropriate equipment. Patients with aphasia are supported by trained staff and with communication strategies. We encourage patients to wear their own clothing to further normalise the environment. Patients with cognitive problems are not excluded - however, some patients may find a stimulating, busy environment distracting, making it unsuitable therapeutically - this is considered on an individual basis. Patients with continence problems are supported with appropriate aids. There are no limits with respect to age or gender, but staff are sensitive to offer patients companions likely to have similar interests and functional abilities. Patients receive a verbal description of Lunch Club before verbal consent is obtained. Patients are encouraged to walk 10-20m to and from the lunch room with a therapist and appropriate facilitation/aids. Patients engage in social interaction/conversation with other patients, therapists and healthcare assistants seated at the tables. Patients are observed (and assisted) by therapists with regards to cutlery use, spatial awareness and swallow safety.

Results: Patients can be observed functioning in a normalised environment e.g. regarding their listening skills and understanding, turn taking and the ability to initiate conversation. The MDT can assist patients with supported communication strategies, as identified in individual therapy sessions.

As well as increasing social participation, Lunch Club enables dysphagia management and allows Speech Therapists to assess several patients over the course of a meal when patients are seated at the same table. This has been time-efficient for patients requiring upgrades of modified diet or if a meal assessment would be more beneficial in order to further objectify dietary consistency recommendations. We also find Lunch Club useful in implementing dysphagia management strategies, such as modifying bolus size and considering pacing.

Patients typically receive about 60 minutes of therapy at Lunch Club. Each month about 35 stroke patients attend. Therapist input involves 4 qualified staff and 2 assistants for each Lunch Club – this is under review to ensure that staffing levels on the ward remain equitable for all patients during this period.

Our SSNAP team centred data improved to a score 'B' for Speech and Language Therapy.

Patient centred SSNAP score for SLT improved to 'C', having previously been 'E'.

Conclusion: Lunch club has favourable reports from patients and staff; it allows various forms of individualised therapy in a communal area and has benefits in terms of socialisation and mood; it helps staff deliver targeted therapy in a time-efficient manner.

Secondary Prevention

11. Deep Venous Thrombosis (DVT) after stroke. Effective Prophylactic measures

Abathar A. School of Medicine, Keele University / UK

Introduction: Treatment of Deep Venous Thrombosis (DVT) is sufficient in preventing morbidity and mortality after stroke. However, fatal Pulmonary Embolism (PE) caused by a symptomless DVT is the cause of 25% of the early death. Current practice should be proactive rather than reactive with clinical staff stratifying risk on admission and implementing appropriate methods of management and reviews rather than waiting for symptoms to appear. The risk stratification of DVT is completed as standard at assessment to the Acute service at that point of time. The identified incidences of DVT / PE's, however, occurred following this within the first two weeks and diagnosed when symptomatic once transferred to another unit. The national guidance updated recommends the use of IPC for up to 30 days for identified patients.

Method: The stroke unit in County hospital patient's record was explored from January-December for 2015 and from Jan-Dec 2016 looking for the incidence of the in-hospital DVT and PE 220 stroke patients admitted to the ward during 2015. Lower limb DVT diagnosed in 4 and PE in 2. While in 2016, another 200 patients were admitted, and only 2 patients developed DVT.

Results: 220 stroke patients admitted to the ward during 2015. Lower limb DVT diagnosed in 4 and PE in 2. While in 2016, another 200 patients were admitted, and only 2 patients developed DVT.

Conclusion: Post-stroke DVT has a massive burden on the patient's life. However, it could be easily tackled by imposing evidence-based prophylactic measures like IPC. This could be seen clearly improve the ward practice when the incidence of DVT reduced by tow-third in 2016 after successful implementation of IPC in all ward's bed. Also, alerting the medical staff about the urgency of the diagnosis and treatment of DVT/PE through programmed workshop inside the hospital.

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Ongoing Trials

Education and Training

OG1. Promoting integrated team working across the Stroke Care Pathway - The South Dublin Allied Health Professionals Stroke Forum (SDSF)

O'Reilly F, McCaffrey A. The Royal Hospital Donnybrook on behalf of the South Dublin AHP Stroke Forum

Introduction: The SDSF was established in 2010 by three allied health professional (AHP) teams working across the continuum of stroke care: acute, rehab and community. The aim of this group was to enhance communication and peer support among services and facilitate a smooth transition of patient care along the stroke pathway.

Method: Held on a four-monthly basis, this forum has examined a diverse range of subjects. Core objectives include inter-hospital networking, promotion of continuing professional development (CPD) through expert presentations, literature reviews, and development of service initiatives. A survey of members was conducted to identify the value of this forum and to determine areas for future consideration.

Results: All respondents found the forum beneficial to their practice. Members felt strongly that it contributed to interdisciplinary working, CPD, and the implementation of local service developments. Outcomes include: compiling a directory of stroke AHPs in South Dublin, implementing improved Stroke driving screening, provision of patient information on Sexuality and Stroke, Introducing the Oxford Cognitive Screen into practice, FIM+FAM training and development of an upper limb programme. This group has expanded over the years to include members from six stroke services. Future objectives include developing a community based young adult stroke support group, promoting a public awareness initiative, and conducting cross site research.

Conclusion: The information presented suggests that allocating time to cross site working and pooling of knowledge and skills can contribute to developing evidence based initiatives that could help enhance the quality of care for the stroke survivor and their relatives.

OG2. Meeting the Need for Shared Learning in the Delivery of Integrated Stroke Rehabilitation – Establishing and Implementing an Interdisciplinary 'Stroke Skills Workshop'

O'Reilly F, McCaffrey A. On behalf of the Stroke Rehabilitation Team. The Royal Hospital Donnybrook, Dublin. Ireland.

Introduction: In an effort to support upskilling and integration of new ward based staff into a stroke rehabilitation team and to meet the recommendations that 'all people working with stroke patients are trained in Stroke Core Competencies' (HSE 2017), a Stroke Skills workshop was devised and rolled out.

Method: A three-module programme was developed for rehabilitation staff. It included an accredited online module; the Stroke Training and Awareness Resources (STARS) and two modules of an interdisciplinary education workshop with a large practical component covering 20 Stroke Core Competencies. An evaluation form was completed by staff to direct future development.

Results: Of 18 respondents, the majority of staff trained were health care assistants and nursing staff. All staff rated the training quality as either excellent or very good and they felt it would benefit their clinical practice. One hundred per cent of staff felt it would promote closer working. Open question responses were strongly positive. Areas of benefit included; practical demonstrations, training on postural management, handling techniques and discussion around case examples to illustrate 'points that everyone could relate to'. Use and rationale for equipment such as dressing aids, splints and orthoses. Suggestions for future training were proposed.

Conclusion: This blended model of: e-learning, taught core competencies, and an interactive practical workshop was positively received by all staff. In particular, the emphasis on practical skills and the 24-hour approach to rehabilitation has contributed to enhanced interdisciplinary working in the service.

Rehabilitation

OG3. Fluoxetine or control under supervision (FOCUS)

C Williams, for the FOCUS Trial Collaborators Centre for Clinical Brain Sciences, University of Edinburgh, Edinburgh, United Kingdom

Introduction: Recent small trials suggest that selective serotonin reuptake inhibitors improve neurological and overall recovery after stroke. Our aims are to determine whether fluoxetine 20mg daily for 6 months, started at 2-15 days after stroke onset in patients with persisting neurological deficits, reduces dependency at 6 months and whether any benefits persist to 12 months

Method: This UK wide, multicentre, randomised placebo-controlled trial aims to recruit more than 3000 patients. Eligible patients providing informed consent are randomised by a central web-based system. Patients' progress in-hospital and early adherence are collected by local follow-up at hospital discharge (for inpatients) and central follow-up at one month (for outpatients).

Other secondary outcomes (survival, health related quality of life, mood, fatigue, Stroke Impact Scale), new clinical diagnosis of depression and resource use) are collected at 6 and 12 months via postal, or telephone questionnaires to patients and general practitioners. Based on a sample size for a binary outcome, a trial of 3000 (1500 per group) will provide greater than 90% power (alpha = 0.05) to detect a 5.5% absolute increase in proportion of patients with a modified Rankin score of 0-2 (i.e. independent) (odds ratio = 1.30). We have harmonised assessments with the Australian AFFINITY (Assessment of fluoxetine in stroke recovery) and Swedish EFFECTS (Efficacy oF Fluoxetine – a randomisEd Controlled Trial in Stroke) trial We have harmonised assessments with the Australian AFFINITY (Assessment of fluoxetine in stroke recovery) and Swedish EFFECTS (Efficacy oF Fluoxetine – a randomisEd Controlled Trial in Stroke) trial.

Results: Recruitment closed 31st March with more than 3000 patients.

Conclusion: FOCUS will tell us whether fluoxetine, improves overall recovery in a broad range of stroke patients.

OG4. Using apps for rehab

Ruth Siewruk - Northern Devon HealthCare Trust

Introduction: Project to explore use of apps for rehab within stroke. 5 year project testing different apps and creating a free, impartial on-line resource. www.my-therappy.co.uk

Method: An interactive workshop to cover the following: -

- Introduce the concept of using "Apps" as a rehab tool.
- Demonstrate how Apps can be used in a clinical session (videos of actual patients using, mock treatment sessions and case studies in groups as an interactive discussion practical session). By the end participants would hopefully have an idea of the practical application of Apps in a clinical setting and have the skills to start to implement this in their own practice,
- Demonstrate a variety of Apps that are suitable for use helping to rehab post stroke to cover cognition, upper limb, vision, mood, function, exercise tolerance, speech and much more (we can provide a variety of iPads and Android tablets with tried and tested Apps on for people to trial and practice on during the session),
- Introduce the Northern Devon Healthcare NHS Trust App review website which is due to go live in summer 2015 and will be freely available for clinicians and patients,
- Provide information on where to get recommended apps from. The session would consist of a few minutes introduction in a presentation style, followed by breaking into groups to use, try and clinically reason the use of Apps with case studies and practical examples, everyone back together for feedback, closure presentation to introduce how to find ideas of what Apps are suitable.

Results: Previously presented at UKSF 2014 (brag and steal) and 2015 (workshop). We have been using Apps successfully for a number of years and have refined how to identify, critique, use and review apps including having an app pathway. Our website been nationally recognised and is being recommended by the Life After Stroke Centre and Headway. It has also just been shortlisted for an advancing health care award.

0G5. A pilot randomized control trial (RCT) of mirror box therapy in upper limb rehabilitation with sub-acute stroke patients

Alison Porter-Armstrong[1], Patricia McIlwaine[2], Lourene Abbi[2], Nicola Gallagher[1], Ian Bradbury[1], May Stinson[1], [1]School of Health Sciences, University of Ulster, Northern Ireland, [2]Occupational Therapy Department, Northern Health and Social Care Trust, Whiteabbey Hospital, UK

Introduction: Individuals who have sustained a stroke are often left with residual deficits of the upper limb that can restrict functional use of the limb in everyday activities and can result in dependency upon others to engage in some tasks. Regaining independence through functional use of the arm and hand is the aim of occupational therapy (OT) interventions. Mirror box therapy (MBT) is a relatively new innovation being introduced into OT. Some studies have reported it to be beneficial in upper limb rehabilitation, and this pilot study aims to provide evidence, using RCT design, as to whether this type of therapy may offer greater potential in functional gains in the sub-acute recovery period of stroke than standard rehabilitation of the upper limb alone.

Method: 50 participants, meeting inclusion criteria, will be randomized into two groups (treatment n=25; control n=25). Participants in both groups will receive standard OT assessment and treatment for upper limb rehabilitation throughout their in-patient stay. Participants in the treatment group will additionally undertake two 20-minute sessions of MBT, five days/week. Outcome measures will be completed by an independent assessor every 2 weeks up until discharge and at 3/6 months post-discharge. Outcomes include the Wolf Motor Function Test; the Functional Independence Measure; the Canadian Occupational Performance Measure and the EQ-5D-5L.

Results: This 3-year study commenced in March 2015. This presentation will explore the use of MBT in upper limb rehabilitation, outline the protocol for the study and comment upon the early stages of implementation.

Conclusion: This is an ongoing study due to finish in January 2018.

OG6. Study of the Impact of Occupational Therapy Task Specific Training on Upper Limb Function and Quality of Life

Simms L, Cannon J, Department of Occupational Therapy, The Royal Hospital Donnybrook, Dublin, Ireland

Introduction: Task Specific Training (TST) is defined as training or therapy where patients practice context-specific motor tasks whilst receiving feedback. TST focuses on improving occupational performance in functional tasks through goal-directed practice and repetition. A TST programme was established in The Royal Hospital Donnybrook (RHD) to assess the impact on upper limb functional outcomes and on patient's quality of life. The feasibility of implementing a TST Programme on an ongoing basis in terms of resources, time, and patient motivation/engagement was also evaluated.

Method: A prospective, observational study is underway using a convenience sample of in-patients in the RHD. A 6 week treatment programme was set up which involves 2 x individual therapy sessions and 2 x group sessions per week. The sessions involve timing participants as they complete 3 repetitions of 3 personalised tasks for 1 minute per rep.

Results: We have results on 11 patients (expected N=15 by June 2017).
Data for mean scores for more-affected hand analysed using Paired t test
Dynamometer - 33% improvement; P=0.0358 ie, statistically significant.
Box & Block - 21% improvement; P=0.2323 ie, not statistically significant.
Wolf - 27% improvement; P=0.0005 ie, extremely statistically significant.
Neuro-QoL - 3% improvement; P=0.0017 ie, very statistically significant.
9 Hole Peg Test - 64% of patients could complete this initially.
100% completed this test by programme end.

Conclusion: All outcome measures have shown improvement in patient's performance. Three out of six outcome measures demonstrate statistically significant improvements.

OG7. Talking about sex after stroke - what, when and how

Stevens J CLAHRC Greater Manchester, University of Manchester

Introduction: The RCP guidelines found sexual function and activity after stroke is a topic often overlooked by healthcare professionals and unlikely to be broached by stroke survivors without prompting (RCP, 2016). Evidence in this area often relates to medical intervention, but what other evidence for intervention is there?

Method: A literature review was undertaken using the CINAHL database, and papers reviewed. An advisory group of stroke survivors and carers was also convened to assist with steering the actions following the findings of the review.

Results: Most research to date has looked at healthcare professionals' attitude and barriers to providing advice about sexual relationships after stroke. There is scant evidence of what stroke survivors want to be told, when and how. In addition much emphasis is placed on medical and psychological intervention. Stroke survivors say that it is also important to look at practical (positioning) communication, and continence issues and that sex after stroke should have an MDT focus.

Conclusion: The next steps will be to work with the advisory group to establish an assessment tool which is acceptable to them, and resources to enable an MDT approach. Evaluation of this will follow, in the hope that the next guideline will be able to inform more widely on sex after stroke.

OG8. CLCH Stroke Peer Mentoring Scheme

Eleanor Levi, Central London Community Health care

Introduction: A local stroke focus group was held in 2011, which consisted of local stroke survivors, carers and local professionals. It was agreed that there was a need for low level emotional support from people who really understood what it was like to live life following a stroke. There was a discussion about gaps in local services and the need for a range of longer term community based services to support stroke survivors. CLCH community neuro rehab team were commissioned to set up the peer mentoring scheme in Kensington & Chelsea borough.

Method: Peer mentoring consists of one to one flexible sessions either in a mentees home or in the local community. The scheme provides sharing of experience, help with the recovery process. Motivating people to regain confidence. Mentors become volunteers and are provided with training, Support and supervision and a contribution to their travel expenses. All mentors are DBS checked. This scheme not only provides support for those needing it but enables mentors to feel empowered by helping others.

Results: As a result of this scheme, mentees have become mentors and go on to support others, they are able to regain confidence and come to an acceptance of their situation and are able to look forward as opposed to mourning a past life due to the effects of stroke.

Conclusion: The Scheme is on-going and we plan to be able to provide this scheme in other boroughs, and continue to empower stroke survivors. We are currently continuously recruiting members for both roles.

Secondary Prevention

OG9. REstart or STop Antithrombotics Randomised Trial (RESTART)

C Williams, for the RESTART trial collaborators.
Centre for Clinical Brain Sciences, University of Edinburgh, Edinburgh, United Kingdom

Introduction: For adults surviving stroke due to spontaneous (non-traumatic) intracerebral haemorrhage (ICH) who had taken an antithrombotic (i.e. anticoagulant or antiplatelet) drug for the prevention of vaso-occlusive disease before the ICH, does a policy of starting antiplatelet drugs result in a beneficial net reduction of all serious vascular events over at least six months compared with a policy of avoiding antiplatelet drugs? Do brain microbleeds modify the effects of antiplatelet drugs? Participants: Adults surviving ICH who had taken an antithrombotic drug for the prevention of vaso-occlusive disease before the ICH.

Method: Intervention: Start antiplatelet drugs (aspirin, clopidogrel or dipyridamole; chosen at investigator's discretion). Optional sub-study of brain magnetic resonance imaging (MRI) to assess microbleeds before randomisation. Comparator: Avoid antiplatelet drugs.

Outcomes: recurrent symptomatic ICH (primary); vaso-occlusive events, symptomatic stroke of uncertain type, other fatal events, modified Rankin Scale score, and adherence to antiplatelet drugs (secondary).

Randomisation: Central, web-based system using a minimisation algorithm, with 1:1 treatment allocation to which central research staff are masked.

Results: Follow-up: Central: annual postal or telephone questionnaires to participants and their GPs. Local: medical records and any brain imaging relating to outcomes. Administrative data: Death certificates and Hospital Episode Statistics. Sample size: At least 720 participants in the main trial (at least 550 in the MRI sub-study). 385 participants have been recruited by 14th March 2017.

Conclusion: Recruitment: Ongoing, closing 31 May 2018. Registration: ISRCTN71907627. Website: www.RESTARTtrial.org

OG10. Improving Screening for Sleep Apnoea with a Valid Clinical Screening Tool - Through Quality Improvement (QI) Methodology

Keegan BC, Sin J, McGartland L, Jordan C, Grimes S.South West Acute Hospital, Enniskillen, UK.

Introduction: People with sleep apnoea are at increased risk of cerebrovascular events. Accordingly, the Royal College of Physicians has recommended screening with a validated clinical screening tool, and onward referral of those screening positive. We aimed to implement these guidelines and have utilised QI methodology to do so.

Method: Starting at a routine screening level of 0% upon our stroke unit, we set about introducing the STOPBANG questionnaire as a validated screening tool; in order that we might identify appropriate individuals for potential risk factor modification. Left to consideration upon ward rounds, screening levels remained poor. Securing Junior Doctor buy-in to the project enhanced screening rates, albeit to levels below intended target. Review of QI progress with introduction of STOPBANG into Stroke Patient clerking proformas, increasing awareness of sleep apnoea with posters upon the stroke unit, and most recently delivering of formal teaching at stroke unit multidisciplinary education session has facilitated improvement in screening.

Results: At baseline, there was no routine screening of patients for sleep apnoea as a stroke risk factor upon our stroke unit. Since introduction of our QI programme, screening rates have increased from 14% to 66%, with identified patients referred onwards and receiving intervention as appropriate. Most recently, as part of the QI process, we have adopted review of STOPBANG score within the regular stroke multidisciplinary meetings. Further final figures with outcome of this step shall be provided for the NIMAST meeting.

Conclusion: Using quality improvement methodology and securing multidisciplinary engagement can improve adherence to specialty guidelines.

Service development (research)

OG11. A Song of Ice And Fire: Developing A Data Dictionary for Recording Clinical Concepts for Stroke In Electronic Records Using SNOMED and HL7 FHIR

Hill AM. St Helens and Knowsley Teaching Hospitals NHS Trust

Introduction: Since its introduction in 2013, the Stroke Sentinel National Audit Programme has been an exemplar in driving service improvement and undertaking population-level research to answer fundamental research questions in stroke care. The primary disadvantage of this approach is that collecting and maintaining the national dataset often involves expensive, manual data collection and validation processes. Increasing numbers of hospitals have moved to electronic records systems for storing of clinical records. National audit data should be fully extractable from an electronic record system in an automated fashion. In order to do this there must be clear definitions of the data stored and the form it would be expected to be found in within the record, in order to map it to the national dataset. This data would need to be clinically useful too, and therefore encapsulate the clinical concepts one would expect to find in a stroke admission.

Method: We have begun the development of a stroke data dictionary which would encapsulate all of the information required by the Stroke Sentinel National Audit. The SNOMED clinical coding system describes individual clinical concepts using unique identifying codes. These concepts can be joined together to form a coherent record of the patient's admission.

The SNOMED codes are used in conjunction with the HL7 FIHR standard, which is an international standard used by many modern electronic record systems for storing and retrieving clinical data in a common database shape with standardised 'objects' of data. SNOMED clinical codes form the backbone of these objects. HL7 FIHR makes it easy to extract and exchange these objects with other applications. The data dictionary defines which objects one would expect to find, and the range of SNOMED codes used to describe stroke concepts. This will produce an open-ended specification, allowing further refinement and definition of clinical terms over time.

Results: We are in the process of producing a paper for consultation describing the HL7 FIHR objects and associated SNOMED codes we would expect to find within a typical stroke admission. Stroke is a particularly challenging area because of the highly specialised multidisciplinary working that occurs and specialist domain knowledge required by a range of different individuals.

Conclusion: This is an ongoing project in which I would like to engage and gain input from the wider stroke community. It is intended that we will have an open and shareable standard document which could be used to inform and guide development of electronic records, and reduce the administrative burden of clinical teams.

OG12. Is it worth to keep looking for Occult Cancer in Unprovoked Venous Thromboembolism and Cryptogenic Stroke?

Mahmood SS, Hughes B, Gaba W, Ramadan H, Patterson C, Maguire Department of Stroke Medicine, Bradford Teaching Hospital, UK

Introduction: Cryptogenic stroke (CS) can be caused by paradoxical embolism (PDE) due to patent foramen ovale(PFO). This could be due to unprovoked venous thromboembolism (VTE) and may well be the earliest sign of occult cancer.

Case Report: A 59-year-old male presented with two days history of right sided visual loss and constipation. Past medical history included ex-smoker (20-pack-years) and a right occipital infarct (2009) with no cause found (CS). Systemic examination was normal except new neurological finding of right hemianopia. ECG showed sinus rhythm. MRI/MRA showed old right PCA infarct with acute left PCA infarct and normal angiogram. He was independently mobile with no symptoms/signs of VTE. Routine bloods were NAD. Random d-dimers were raised at 1190. He then had bilateral Venous Dopplers of the legs which were negative for DVT. CTPA confirmed him to have asymptomatic bilateral PE with PFO later confirmed on bubble echo. He was started on lifelong anticoagulation based on embolic stroke and unprovoked VTE. Thrombophilia screen, abdomino-pelvic CT and vasculitis screen were all negative. On follow up in clinic, PSA was found to be raised at 8.36, for which he was referred to urology and subsequently diagnosed with advanced prostate cancer and commenced on hormonal treatment.

Conclusion: Patients with cryptogenic stroke (CS) should be evaluated for presence of VTE, and if present should be anticoagulated. Raised d-dimers and multiple vascular territories in ischemic stroke suggest occult cancer. Currently there is no standardised approach to screening and it's often up to clinician discretion.

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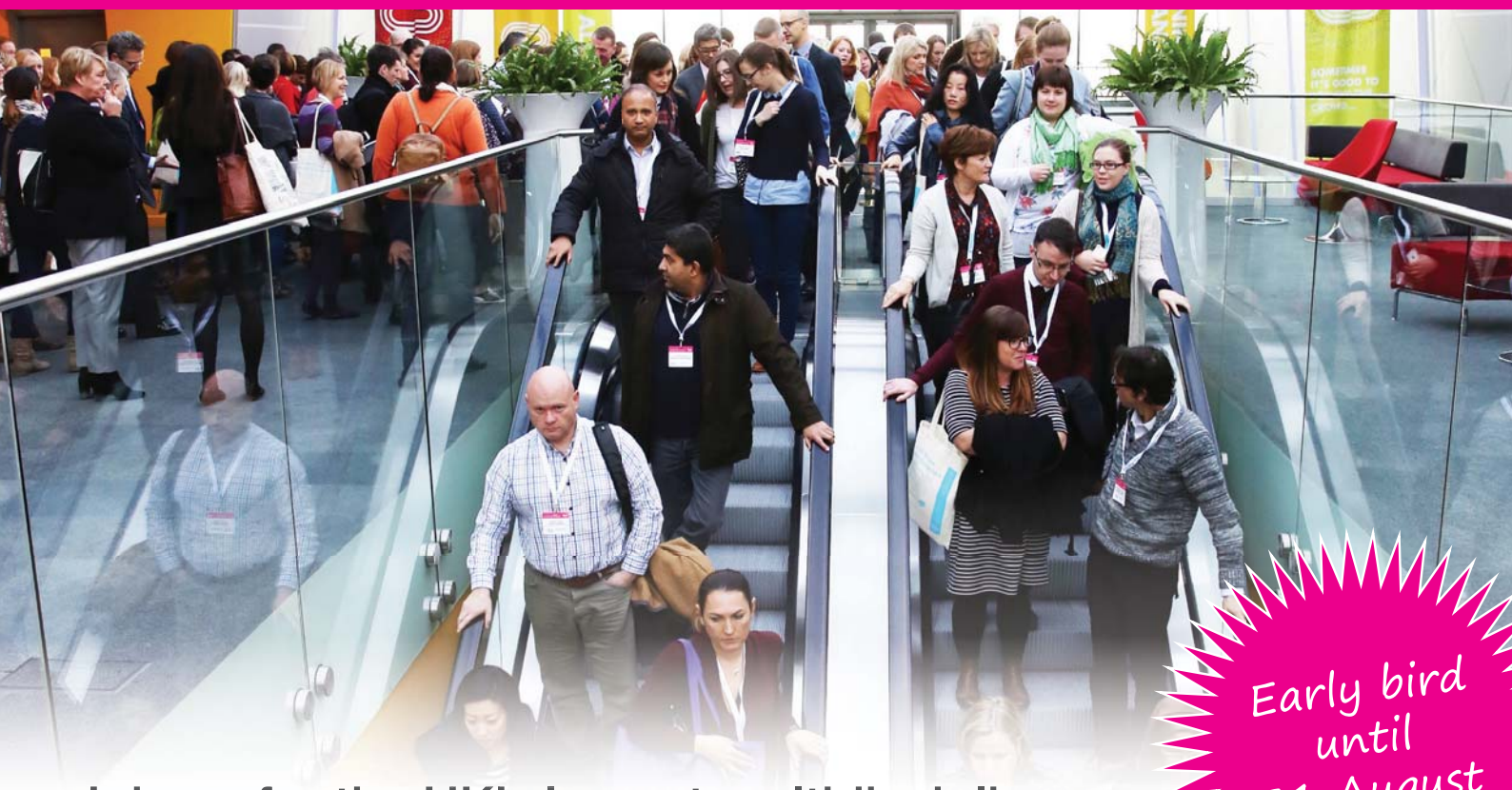

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